

Local Health Department Viral Hepatitis Surveillance Guidelines

**Hepatitis Unit
Bureau of Communicable Disease Control
New York State Department of Health**

Revised 2006

Viral Hepatitis Surveillance Guidelines

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Introduction

On January 1, 2003, chronic hepatitis B and C infection were added to the Nationally Notifiable Disease List (NNDL). While hepatitis B and C infections are not new to the list of reportable communicable diseases in New York State, in the past only the reporting of acute cases was encouraged. The New York State Department of Health (NYSDOH) now encourages the complete reporting of both acute and chronic hepatitis B and C cases.

The primary goals of conducting surveillance for viral hepatitis are to direct prevention and control activities for these diseases and to evaluate the impact of these activities. Surveillance information provides the ability to:

- Monitor trends in incidence of, and risk factors for, disease
- Assess the burden of disease in New York State
- Identify infected persons requiring counseling and medical follow-up
- Identify contacts of infected persons requiring counseling and/or post-exposure prophylaxis
- Identify outbreaks and implement control measures.

All confirmed cases of chronic hepatitis reported to the NYSDOH are, in turn, reported to the Centers for Disease Control and Prevention (CDC) on a weekly basis.

The NYSDOH remains committed to providing local health departments (LHDs) with the most up-to-date resources and technical assistance for viral hepatitis surveillance and outbreak control. In 2003, the Bureau of Communicable Disease Control, Hepatitis Unit, developed the first edition of the Viral Hepatitis Surveillance Guidelines for LHDs. The development of the patient-based Communicable Disease Electronic Surveillance System (CDESS) and the hepatitis tracking system within CDESS, along with changes in hepatitis testing practices and the need for additional reference resources at the local level, prompted the development of the second edition of the Viral Hepatitis Surveillance Guidelines.

The purpose of this guide is to assist LHD staff with specific surveillance and reporting activities, while recognizing the resource burden on LHDs due to the high prevalence of hepatitis B and C cases in NYS. The guidelines aid in prioritizing case investigation and follow-up and provide assistance in reporting cases for which minimal information is available. Information specific to the use of CDESS for reporting hepatitis cases is also included in this edition of the guidelines.

New York State Sanitary Code

Reporting of suspected or confirmed communicable diseases is mandated under the New York State Sanitary Code (10NYCRR 2.10a). The primary responsibility for reporting rests with the physician; moreover, laboratories (PHL 2102), school nurses (10NYCRR 2.10) or other health care providers (10NYCRR 2.12) are also required to report communicable diseases. Local Health Departments (LHD) are required to investigate (10NYCRR 2.6) and report cases of communicable disease to the State Health Department (10NYCRR 2.10b).

Hepatitis A is a highly contagious disease that attacks the liver, caused by infection with the hepatitis A virus (HAV). HAV is the most common type of viral hepatitis and one of the most frequently reported vaccine preventable diseases in the United States.

Occurrence

Hepatitis A is endemic in Central and South America, Africa, the Middle East, Asia and the Western Pacific. In the United States, the number of hepatitis A infections has been declining since 1995, likely due to increasing use of the hepatitis A vaccine. An estimated 24,000 HAV infections (reported and unreported) are thought to have occurred in the United States in 2004. New York State reported 112 cases in 2005 (excluding NYC). Additional hepatitis data summaries can be found online at <http://www.health.state.ny.us/diseases/communicable/hepatitis>, in the Surveillance and Reporting section.

Clinical Manifestation

HAV infection is generally characterized as an acute, self-limiting illness. Unlike the hepatitis B and C viruses, hepatitis A virus infection does not result in chronic disease. Onset of illness generally appears as an abrupt onset of **fever, malaise, anorexia, nausea, abdominal pain, followed by dark urine and jaundice**. The appearance and severity of clinical illness are directly correlated to age. Children tend to experience very mild illness, rarely develop obvious jaundice and as a result, are often undiagnosed. Teens and adults are more likely to develop noticeable symptoms. Older adults tend to experience more severe clinical illness, while most (70%) children under the age of 6 experience asymptomatic infection. As many as 15% of persons infected with HAV experience relapsing symptoms over a six to nine month period. Fulminant hepatitis associated with HAV infection is rare but may occur in persons with underlying liver disease.

Transmission

Transmission of the hepatitis A virus is primarily through the fecal-oral route. Common modes of transmission include close personal contact and consumption of contaminated food. Common source outbreaks have been related to food contaminated at its source and from an infected food worker handling ready to eat foods. Waterborne transmission is less common in the United States, as waterborne transmission generally occurs as the result of unsanitary sewage systems.

Period of Communicability

Virus shedding among adults begins two weeks prior to the onset of symptoms, jaundice and/or elevated liver enzymes and begins to diminish by the time jaundice and/or symptoms develop. Communicability is minimal one week after the onset of symptoms, jaundice and/or elevated liver enzymes. Infants and children may shed the virus longer (up to 6 months after infection).

Incubation Period

Average of 28-30 days after exposure, with a range of 15 to 50 days.

Laboratory Diagnosis

The laboratory diagnosis of HAV infection is confirmed if the serology is positive for **IgM anti-HAV**, which is detectable 5-10 days after exposure and can persist for 6 months (longer in some cases). Commercially available tests to detect the virus in stool or blood are not available. False positive IgM anti-HAV tests have been reported among low-risk populations.

Risk Groups

- Household contacts of infected persons
- Sexual contacts of infected persons
- Persons, especially children, living in areas with increased rates of hepatitis A
- Persons traveling to countries where hepatitis A is common
- Men who have sex with men
- Injecting and non-injecting drug users

Prevention

- Hepatitis A vaccine is the best protection. The vaccine is recommended for the following individuals:
 - All children at 1 year of age (12-23 months) and older
 - Travelers to areas with increased rates of hepatitis A
 - Men who have sex with men
 - Injecting and non-injecting drug users
 - Persons with clotting-factor disorders (e.g. hemophilia)
 - Persons with chronic liver disease.
- Short-term protection against hepatitis A is available from immune globulin (IG). It can be given as a pre-exposure prophylaxis and as a post-exposure prophylaxis. When used as a post-exposure prophylaxis, it must be given within 2 weeks of last exposure to a person with HAV (see below).

Post Exposure Prophylaxis

- When indicated, close contacts of infected persons should be given immune globulin (IG) within two weeks of the last exposure to an infectious person (i.e., within the infected persons period of communicability). Close contacts include:
 - Family members
 - Household contacts
 - Sexual contacts
 - Playmates
 - Attendees at child care centers
 - Persons sharing illegal drugs
 - Persons sharing food or beverages
 - Persons in common-source exposure situations (i.e., restaurant patrons where an infected food worker has been identified)
- Persons who have received one dose of HAV vaccine at least one month before an HAV exposure do not need IG.

Counseling Messages for Infected Persons

- Always wash your hands with soap and water after using the bathroom, changing a diaper, and before preparing and eating food.

Treatment

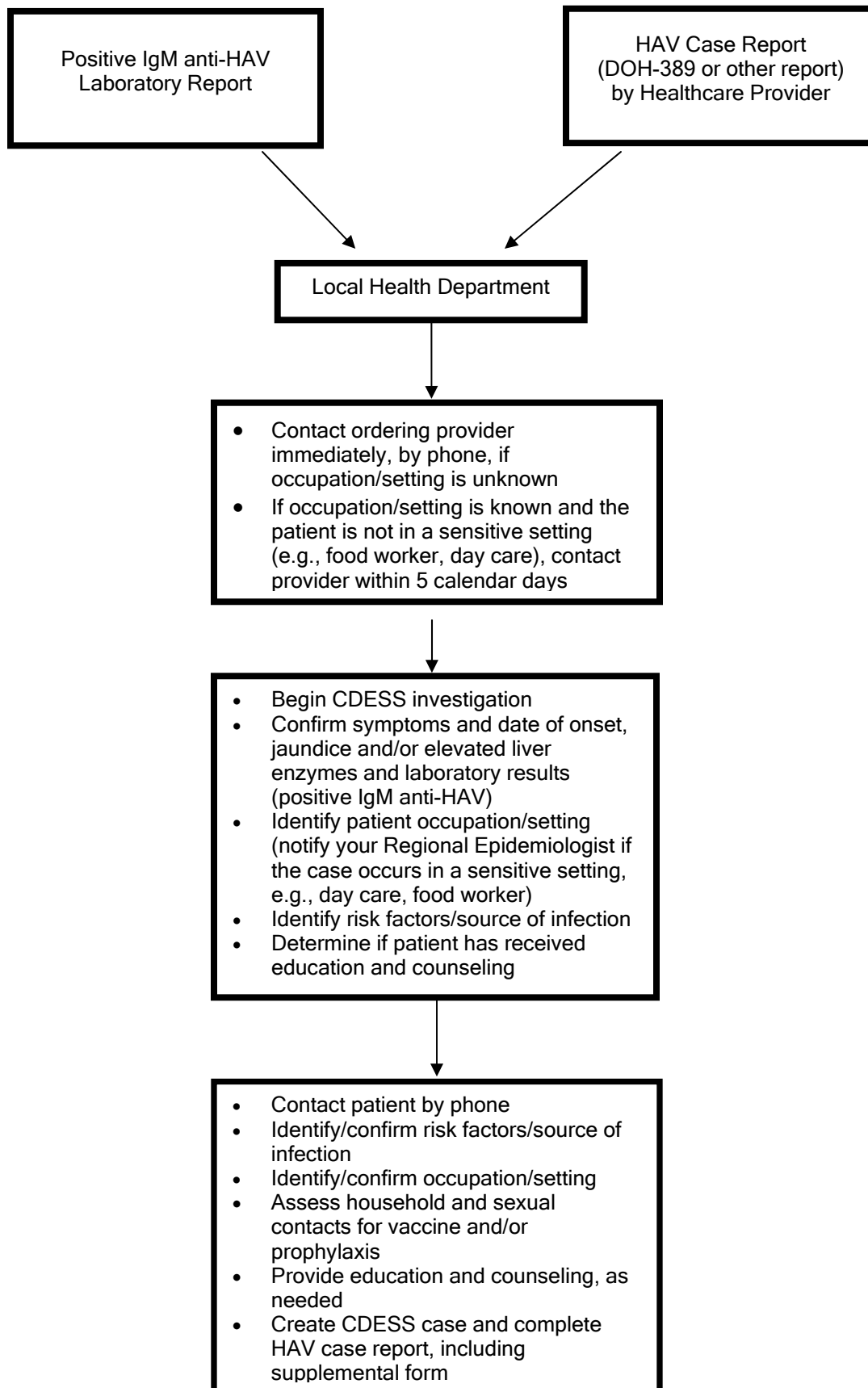
Currently, there is no approved antiviral medication for the treatment of HAV infection. Persons acutely infected with HAV should avoid alcohol and other medications which may be harmful to the liver, until they have fully recovered.

Standard References

1. Heymann, D. Editor. Control of Communicable Diseases Manual 2004, 18th edition. American Public Health Association. Wash., D.C.
2. American Academy of Pediatrics. In: Pickering LK ed. 2003 Red Book Report of the Committee on Infectious Diseases. American Academy of Pediatrics, 26th edition. Elk Grove Village, IL.
3. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Atkinson W, Hamborsky J, McIntyre L. Wolfe S, eds. 9th ed. Washington DC: Public Health Foundation, 2006.
4. Centers for Disease Control and Prevention Guidelines for Viral Hepatitis Surveillance and Case Management. Atlanta, GA 2005.

Select References

1. Centers for Disease Control and Prevention. Positive Test Results for Acute hepatitis A Virus Infection Among Persons With No Recent History of Acute Hepatitis-United States, 2002-2004. MMWR Vol. 54, No. 18, May 13, 2005.
2. Centers for Disease Control and Prevention. Prevention of Hepatitis A Through Active or Passive Immunization Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Vol. 55, No. RR-7, May 19, 2006.



I. Purpose of Surveillance and Reporting

The identification of persons infected with hepatitis A virus is an important public health activity. Surveillance systems can aid in the reduction of secondary transmission of disease, and in the identification of outbreaks. In addition, surveillance and reporting assist in the following public health activities:

- Identify close contacts of HAV-infected patients and ensure vaccine and post-exposure prophylaxis are received, when appropriate.
- Monitor trends in transmission patterns.
- Monitor changes in overall and age-specific disease rates to assess the effectiveness of hepatitis A vaccination programs.

II. NYSDOH Surveillance and Reporting Requirements

1. What/When to investigate

- The following reports should be investigated *immediately*:
 - Positive laboratory report for IgM anti-HAV for which occupation of patient is unknown, a food worker, or a participant in a sensitive setting (e.g., day care)
 - DOH 389 or other report of a hepatitis A case for which occupation of patient is unknown, a food worker, or a participant in a sensitive setting (e.g., day care)
- The following reports should be investigated within 5 calendar days of receipt:
 - Positive laboratory report for IgM anti-HAV for which patient occupation is not a food worker or other sensitive setting
 - DOH 389 or other report of a hepatitis A case for which patient occupation is not a food worker or other sensitive setting
- Create Case Investigation on CDESS

2. Case Ascertainment

- Persons reported as suspected cases based on clinical and/or epidemiologic criteria alone should be followed up to ensure that appropriate diagnostic testing for acute viral hepatitis is done. Contact the reporting health care provider for diagnostic test results and to confirm the clinical presentation.
- For IgM anti-HAV positive laboratory reports:
 - Contact the ordering physician, by phone to verify that the case also meets the clinical criteria of the case definition (see CSTE/CDC Case Definition, page 9).
 - Determine the date of illness onset, whether or not the individual was jaundiced and any liver enzyme test results.
 - Attempt to obtain additional information from provider, as listed on the NYSDOH HAV Supplemental Report Form (see Case Investigation and Follow-Up sections below).

3. Case Investigation

- *Additional (Continued) Provider Follow-Up:*
 - For all confirmed/probable cases, obtain additional information from the provider, including:
 - Case occupation/setting
 - Risk factor information during the 2-6 weeks prior to onset of symptoms
 - Close contacts of the case for IG and/or vaccine
 - Determine if patient/close contacts have been given education and counseling information

- The NYSDOH HAV supplemental reporting form is recommended for provider/patient interviews (the most up-to-date version can be found on the HIN at <https://commerce.health.state.ny.us/hin/ctrldocs/confcase/forms/cdessforms.html>).
 - *Patient Follow-Up:*
 - A patient phone interview is necessary to verify information obtained from provider and to obtain any additional information that the provider did not have. The information is necessary to complete the HAV supplemental reporting form and to identify close contacts. It is important that the following information is ascertained:
 - Case occupation/setting
 - Risk factor(s) for infection during the 2-6 weeks prior to onset of symptoms
 - Close contacts that may require post-exposure prophylaxis and/or vaccine.
 - Provide education and counseling as needed (NYSDOH HAV Fact Sheet available online at http://www.health.state.ny.us/nysdoh/communicable_diseases/en/hepat.htm).
 - *Additional Case Investigation:*
 - **Notify the regional epidemiologist immediately if the case occurs in a sensitive setting (i.e., food worker, child care, health care) or if multiple cases are reported.**
 - If the case was employed as a food worker during the infectious period, please complete the Hepatitis A Infected Food Worker Investigation: Environmental Health Referral Form (see page 14).
4. Follow-up of close contacts
- Immune globulin (IG) should be given to close contacts of a confirmed hepatitis A case, if the contact has not been vaccinated more than one month prior to exposure. Close contacts include:
 - Family members
 - Household contacts
 - Sexual contacts
 - Playmates
 - Persons sharing illegal drugs
 - Persons sharing food or beverages
 - Persons in common-source exposure situations (e.g., restaurant patrons where an infected food worker has been identified)
- IG should be given as soon as possible, but not more than 2 weeks after the last exposure to an infectious hepatitis A case. IG is greater than 85 percent effective in preventing hepatitis A if given within 2 weeks of exposure. The infectious period is generally defined as the three week period that includes the two weeks prior to onset of symptoms or jaundice and the one week period after the onset of symptoms or jaundice. Contacts do not need to be screened for immunity prior to being given IG.
- Close contacts should be provided education and counseling, including a reminder to seek medical attention if symptoms develop, and to practice proper hand-hygiene.
 - If the close contact is part of a risk group or resides in a community hyper-endemic for hepatitis A, vaccine should also be administered for long-term protection.
 - From year to year, supplies of IG vary. If local sources are unable to provide IG, call FFF Enterprises at 1-800-843-7477. Generally, IG can be shipped via overnight mail by FFF Enterprises.

5. Case Reporting

- LHD Communicable Disease Staff should verify the disease status (i.e., confirmed or probable) by ensuring that the case definition is met ***prior to creating a case*** report via CDESS. Electronic HAV case investigations on CDESS meeting the confirmed or probable case definition should be converted to case reports.
- Complete both the Confidential Case Report Form and the supplemental HAV case report forms for all confirmed and probable cases.

CSTE/CDC Acute HAV Case Definition (Revised 2000)**Clinical Criteria**

An acute illness with:

- a. discrete onset of symptoms, and
- b. jaundice or elevated serum aminotransferase levels

AND

Laboratory Criteria

- IgM anti-HAV positive

Case Classification

Confirmed. A case that meets the clinical case definition and is laboratory confirmed or a case that meets the clinical case definition and occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed hepatitis A (i.e., household or sexual contact with an infected person during the 15-50 days prior to onset of symptoms).

NYSDOH Probable HAV Case Definition (effective January 1, 2005)**Clinical Criteria**

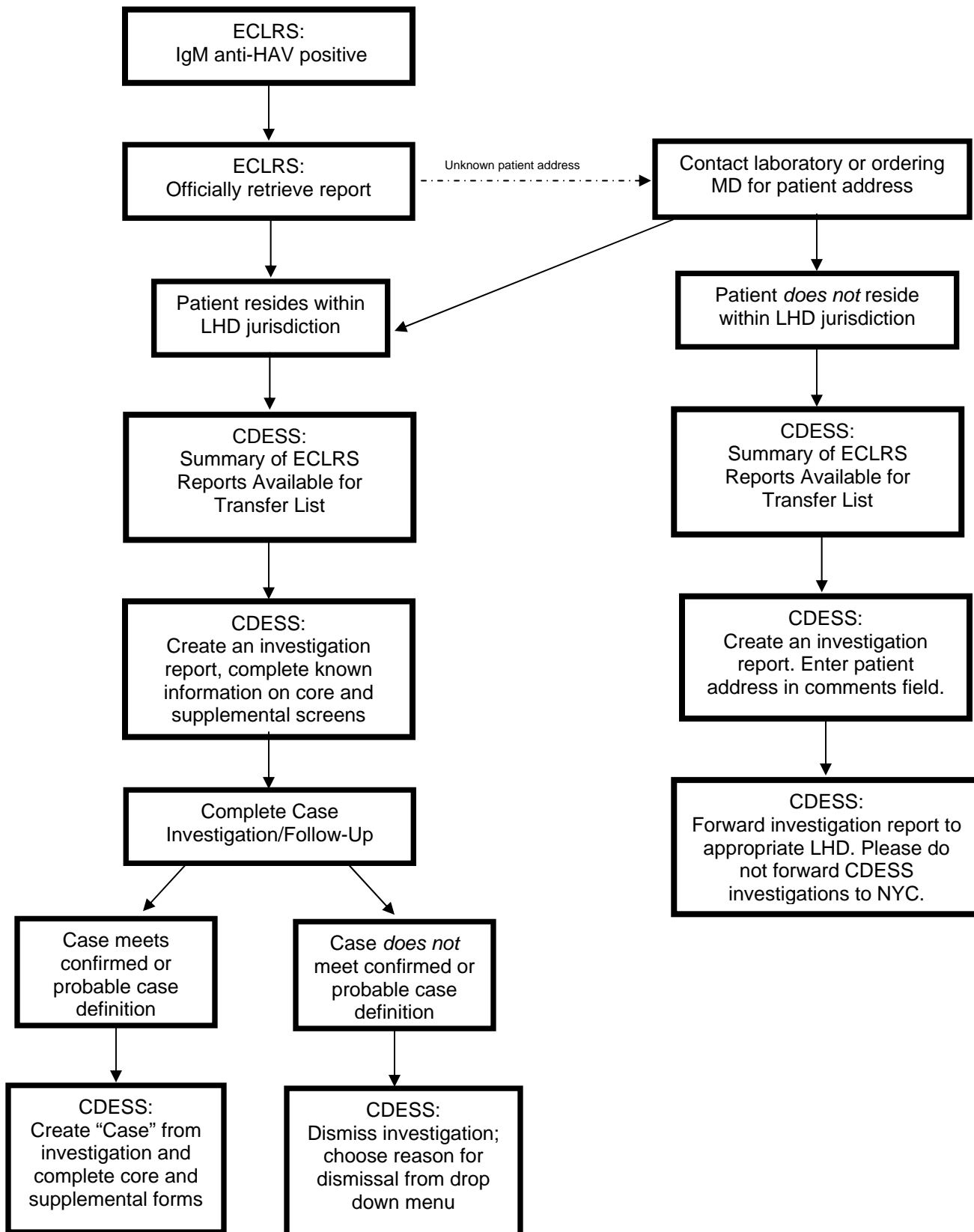
- None

Laboratory Criteria

- IgM anti-HAV positive

Other Criteria

- The patient is epidemiologically linked to a confirmed case of acute hepatitis A. An epidemiologic link is defined as household or sexual contact, or sharing the same exposure as that which is thought to be the cause of a common source hepatitis A outbreak (e.g. dining at a restaurant where an infected food handler was working).

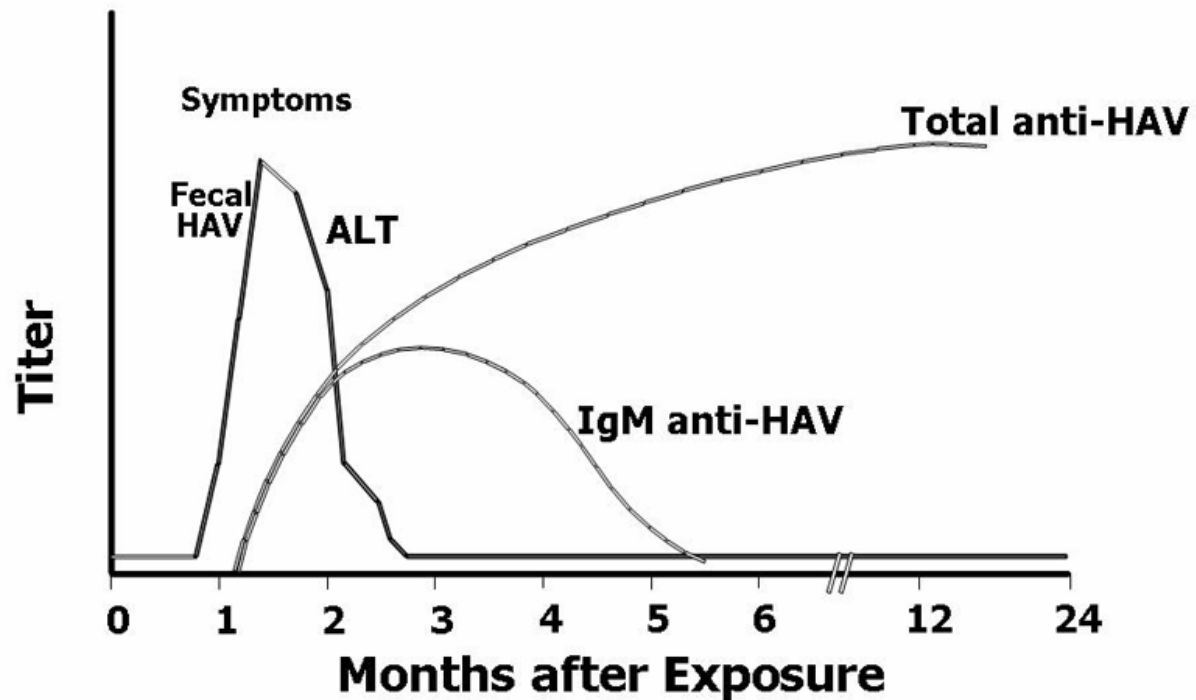


The NYSDOH Hepatitis and Statistical Units carefully monitor all HAV cases reported via ECLRS and CDESS to ensure the accuracy of the case reports and to detect outbreaks.

- NYSDOH Hepatitis Unit staff are automatically alerted by email when an acute HAV case has been reported via CDESS. These cases are reviewed immediately to ensure that the appropriate supplemental information (i.e., risk factors, control measures, and counseling information) has been reported. For this reason, it is important that LHDs report cases of HAV *only when the investigation is complete*; otherwise, the case report should remain an “investigation” report on CDESS.
- Confidential case reports of HAV reported via CDESS are monitored weekly to ensure that newly reported cases meet the case and status definitions, as reported. The Statistical Unit or Regional Hepatitis Surveillance Officer will contact the reporting local health department personnel for further information or to inform of case status changes, as needed.
- Demographic and risk factor information reported for new HAV cases are reviewed weekly to detect possible outbreaks.
- Positive IgM anti-HAV reports on ECLRS are matched against CDESS to verify that the case has been reported. If the case is not reported on CDESS, and the investigation has not been dismissed within 60 days of the ECLRS report, the Regional Epidemiologist or Hepatitis Surveillance Officer will contact the appropriate LHD to determine the reason that a case was not reported. Investigations for all communicable diseases can be dismissed from CDESS by selecting one of the following dismissal reasons (the drop down list is subject to change). Dismissal reasons **relevant to HAV are in bold**:
 - **Case already reported, lab didn't match**
 - **Doesn't meet case definition**
 - **Duplicate ECLRS report**
 - **False positive**
 - Inconclusive
 - **Negative/Non-Reactive report**
 - Not a human report
 - **Not a reportable disease**
 - **NYC case**
 - **Out of state case**
 - Shiga toxin negative
 - Source not a sterile site
 - Titer too low

LHDs ***will not be contacted*** regarding IgM anti-HAV positive ECLRS reports if an investigation for the patient was created and ***dismissed with one of the above reasons***.

HAV Infection: Typical Serologic Course



Source: Centers for Disease Control and Prevention

Communicable Disease

New York State Department of Health

Hepatitis A

What is hepatitis A?

Hepatitis A is caused by the hepatitis A virus. It is a highly contagious disease that attacks the liver. It is the most common type of hepatitis and one of the most frequently reported vaccine preventable diseases in the US.

Who gets hepatitis A?

Anyone can get hepatitis A, but certain persons are at increased risk of infection, including:

- Children and adults living in areas with increased rates of hepatitis (i.e., certain Western states in the U.S.)
- Persons traveling to countries where hepatitis A is common (i.e., Central and South America, Africa, the Middle East, Asia, and the Western Pacific)
- Men who have sex with men
- Injecting and non-injecting drug users
- Sexual contacts of infected persons
- Household contacts of infected persons

How is the virus spread?

Hepatitis A virus is usually spread from person to person by putting something in the mouth that has been contaminated with the stool of a person with hepatitis A. This type of transmission is called the "fecal-oral" route. For this reason, the virus is more easily spread in areas where there are poor sanitary conditions or where good personal hygiene is not observed.

Most infections in the United States result from contact with a household member or sex partner who has hepatitis A. Hepatitis A virus may also be spread by consuming food or drink that has been handled by an infected person. Waterborne outbreaks are infrequent and are usually associated with sewage-contaminated or inadequately treated water. Casual contact, as in the usual office, factory, or school setting, does not spread the virus.

What are the symptoms of hepatitis A?

The symptoms of hepatitis A may range from mild to severe and can include an abrupt onset of fever, malaise, loss of appetite, nausea, stomach pain, dark-colored urine and jaundice (a yellowing of the skin and whites of the eyes). The disease is rarely fatal and most people recover in a few weeks without any complications. Adults have signs and symptoms of illness more often than children. Infants and young children tend to have very mild symptoms and are less likely to develop jaundice than are older children and adults. Not everyone who is infected will have all of the symptoms.

How soon do symptoms appear?

The symptoms commonly appear within 28 days of exposure, with a range of 15-50 days.

For how long is an infected person able to spread the virus?

The contagious period begins about two weeks before symptoms appear and lasts about one week after symptoms appear.

Does past infection with hepatitis A make a person immune?

Once an individual recovers from hepatitis A, he or she cannot be re-infected. He or she is immune for life and does not continue to carry the virus.

What is the treatment for hepatitis A?

There are no special medicines or antibiotics that can be used to treat a person once the symptoms appear. Generally, bed rest is all that is needed.

How can hepatitis A be prevented?

For long-term protection, hepatitis A vaccine is best. The vaccine is now approved for children as young as 12 months of age. To prevent person-to-person spread, careful hand washing, after using the bathroom, changing diapers and before preparing or eating food, is the single most important means of prevention. For close contacts of a person with hepatitis A virus infection, immune globulin (IG) shots are recommended to minimize the risk of disease. Immune globulin for hepatitis A virus protection is only effective if given within 2 weeks of the last contact with a person that is contagious. If given within 2 weeks of exposure, IG prevents clinical illness in more than 85% of recipients.

Who should obtain the hepatitis A vaccine?

Hepatitis A vaccine is recommended for the following persons 12 months of age and older:

- Travelers to areas with increased rates of hepatitis A
- Men who have sex with men
- Injecting and non-injecting drug users
- Persons with clotting-factor disorders (i.e., hemophilia)
- Persons with chronic liver disease (including persons with chronic hepatitis B or chronic hepatitis C virus infection)
- All children 12 months of age and older

Hepatitis A Infected Food Worker Investigation: Environmental Health Referral Form

IN ADDITION, NOTIFY YOUR REGIONAL EPIDEMIOLOGIST OF ANY HAV INFECTED FOOD WORKERS IMMEDIATELY.

Instructions: To be completed by Communicable Disease Staff at the LHD, once a food worker has been confirmed with HAV-infection. This form should be completed in addition to the NYSDOH HAV Supplemental Case Report Form. Note that the infectious period is the period two weeks prior to onset of symptoms through one week after onset of symptoms. If symptom onset date is unclear, use the date of onset of jaundice to calculate the infectious period. When completed, this form should be given to Food Protection immediately (fax, do not mail, and follow up with a phone call to ensure someone received the fax, as a summary of the case/food establishment, so that Food Protection can begin their investigation. Do not send the NYSDOH HAV Supplemental Case Report Form to food protection. One form should be completed for each food establishment that the infected food worker was employed during the infectious period.

Patient Name: _____ HIN ID#: _____ Patient County: _____

Date laboratory confirmed HAV: ____/____/____ Laboratory Name: _____

Name of restaurant or other location/event where food was prepared for others outside the home: _____

Address of restaurant or other location/event: _____

County of establishment: _____

Manager Name: _____ Phone: _____

Type of food establishment:

- | | |
|--|---|
| <input type="checkbox"/> Restaurant
<input type="checkbox"/> Farm
<input type="checkbox"/> Catered event
<input type="checkbox"/> Store (such as bakery or deli)
<input type="checkbox"/> Food processing or distribution
<input type="checkbox"/> Bar
<input type="checkbox"/> Supermarket (deli, bakery, etc.)
<input type="checkbox"/> Convenience store | <input type="checkbox"/> Community event (i.e., church supper)
<input type="checkbox"/> School event
<input type="checkbox"/> Family event
<input type="checkbox"/> Cafeteria
<input type="checkbox"/> Hotel restaurant/food service
<input type="checkbox"/> Healthcare facility
<input type="checkbox"/> Street vendor
<input type="checkbox"/> Other (Specify: _____) |
|--|---|

Dates worked during the 2 weeks prior to onset of illness to one week after onset of illness:

	Date/Shift	Date/Shift	Date/Shift	Date/Shift	Date/Shift	Date/Shift	Date/Shift
WEEK ONE							
WEEK TWO							
Symptom Onset Date: ____/____/____, Shift worked _____							
WEEK THREE							

Please use additional sheets if other food establishments/events are identified.

Name of person completing form: _____ Date: ____/____/____

Agency: _____ Phone: _____ Email: _____

Hepatitis B is a liver disease caused by the hepatitis B virus (HBV). The virus can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer and liver failure.

Occurrence

The incidence of reported hepatitis B cases peaked in the United States in the mid 1980s and continues to decline, as vaccine coverage increases. The Centers for Disease Control and Prevention (CDC) estimate approximately 73,000 new infections per year in the United States. In 2005, 101 confirmed acute hepatitis B cases were reported to the NYSDOH (excluding NYC). An estimated 1.25 million Americans are chronically infected with HBV. Over 5,000 people die from HBV-related liver diseases in the United States each year. As of December 31, 2005, approximately 4,150 confirmed chronic hepatitis B cases have been reported to the NYSDOH. Additional hepatitis data summaries can be found online at <http://www.health.state.ny.us/diseases/communicable/hepatitis>, under the Surveillance and Reporting section.

Clinical Manifestation

The clinical course of acute HBV infection is indistinguishable from that of other types of acute viral hepatitis. Approximately 50% of adults are symptomatic while 90% of infants and children are usually asymptomatic. A discrete onset of symptoms may occur including ***malaise, anorexia, nausea, vomiting, right upper quadrant abdominal pain, fever, headache, myalgia, skin rashes, arthralgia and arthritis and dark urine***. Symptoms may be present one to two days prior to the onset of jaundice. Symptoms generally last from one to three weeks.

The primary determinant of the risk of progressing to chronic infection is age at the time of acute infection. More than 90 % of infants infected perinatally will develop chronic HBV infection. Approximately 25 to 50% of children infected between 1 and 5 years of age become chronically infected, while 6 to 10% of those infected as older children and adults develop chronic HBV infection. Complications of chronic HBV include hepatocellular carcinoma, cirrhosis and liver failure.

Transmission

Transmission of HBV occurs through percutaneous and permucosal exposure to infectious bodily fluids, primarily blood. Moderate levels of the virus have also been found in semen, vaginal secretions and saliva. Low or undetectable levels of the virus have been found in urine, feces, sweat, tears and breastmilk.

Period of Communicability

A person is considered infectious as long as HBsAg is detectable in the blood. Most persons that are ***acutely*** ill with HBV are infectious from 1-2 months before to 1-2 months after the onset of symptoms. Persons with chronic HBV infection, who have positive sera for HBeAg are more infectious than those that are HBeAg negative.

Incubation Period

The incubation period ranges from 45-180 days, with an average of 60-90 days.

Laboratory Diagnosis

Commercially available laboratory tests are available for the diagnosis of both acute and chronic HBV infection; however, a confirmed diagnosis is dependent upon clinical criteria as well.

- HBsAg is the most commonly used test for diagnosing HBV infection. HBsAg can be detected as early as 1 or 2 weeks after exposure to HBV. In self-limited infections, HBsAg disappears in most people before serum anti-HBs can be detected. HBsAg persists in chronic HBV infections.
- IgM anti-HBc is highly specific for establishing the diagnosis of acute infection because it is present early in the infection (present at about the time of onset of symptoms); however, intermittent IgM anti-HBc positivity is occasionally seen among chronically infected persons.

Risk Groups

- Persons with multiple sexual partners
- Men who have sex with men
- Sexual contacts of infected persons
- Injection drug users
- Household contact of infected persons
- Infants born to infected mothers
- Infants/children of immigrants from areas with high rates of HBV infection
- Health care and public safety workers
- Hemodialysis patients
- Persons with tattoos and/or body piercing
- Persons who have had acupuncture

Prevention

- Vaccination against hepatitis B is the best protection:
 - Universal vaccination of all infants, preferably within 12 hours of birth.
 - Prevention of perinatal HBV infection through:
 - routine screening of all pregnant women for hepatitis B surface antigen (HBsAg), and
 - immunoprophylaxis of infants born to HBsAg-positive women and infants born to women with unknown HBsAg status with hepatitis B vaccine and hepatitis B immune globulin (HBIG) within 12 hours of birth.
- Routine vaccination for all previously unvaccinated children and adolescents.
- Dosage and vaccination schedule varies according to currently licensed formulations of hepatitis vaccine, by age group and vaccine type. Please refer to dosage schedules published in the following: *Centers for Disease Control and Prevention. A comprehensive strategy to eliminate transmission of hepatitis B virus infection in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP); Part 1: Immunization of Infants, Children, and Adolescents. MMWR 2005;54(No. RR-16).*
- Provisional adult HBV vaccine recommendations (ACIP, October 2005) include:
 - All unvaccinated adults at risk for hepatitis B virus (HBV) infection and for all adults seeking protection from HBV infection. Acknowledgment of a specific risk factor is not a requirement for vaccination.
 - In settings where a high proportion of the adults served are likely to have risk factors for HBV infection, all unvaccinated adults should be assumed to be at risk and should receive hepatitis B vaccination. These settings include sexually

transmitted disease treatment facilities, human immunodeficiency virus (HIV) testing facilities, HIV treatment facilities, facilities providing drug abuse treatment and prevention, correctional facilities, health care settings serving men who have sex with men, chronic hemodialysis facilities and end-stage renal disease programs, and institutions and nonresidential daycare facilities for developmentally disabled persons.

- Standing orders should be implemented to identify and vaccinate eligible adults in primary care and specialty medical settings. If ascertainment of risk for HBV infection is a barrier to vaccination in these settings, providers may use alternative vaccination strategies such as offering hepatitis B vaccine to all unvaccinated adults in age groups with highest risk for infection (e.g., <45 years).

Prevention Messages

- If you are having sex, use latex condoms correctly every time you have sex.
- If you are pregnant, you should have a blood test for HBV. Infants born to mothers who test positive for hepatitis B surface antigen (HBsAg) should be given HBIG and vaccine within 12 hours after birth.
- Do not shoot drugs. If you shoot drugs, stop and get into a drug treatment program. If you can't stop, never share needles, syringes, water, or "works", and get vaccinated against hepatitis A and B.
- Do not share personal care items that might have blood on them (such as razors or toothbrushes).
- Consider the risks if you are thinking about getting a tattoo or body piercing. Infection is a risk if the artist or piercer does not follow good infection control practices.
- If you are a health care or public safety worker, get vaccinated against hepatitis B and always follow routine barrier precautions and safely handle needles and other sharps.

Post Exposure Prophylaxis

- Short-term protection against hepatitis B is available from hepatitis B immune globulin (HBIG). Post-exposure prophylaxis should be given within 2 weeks of last exposure to a person with HBV.

Counseling Messages for Infected Persons

- Do not donate blood, tissue, or organs.
- Household and sexual contacts should be tested and vaccinated for HBV.
- Avoid alcohol, drugs and medications that may be toxic to the liver.
- If you become pregnant tell your doctor about your HBV status.
- Remain under a physician's care for regular check-ups.
- Consider need for hepatitis A vaccine.

Additional counseling messages and printable brochures are available through the CDC website at www.cdc.gov/hepatitis.

Treatment

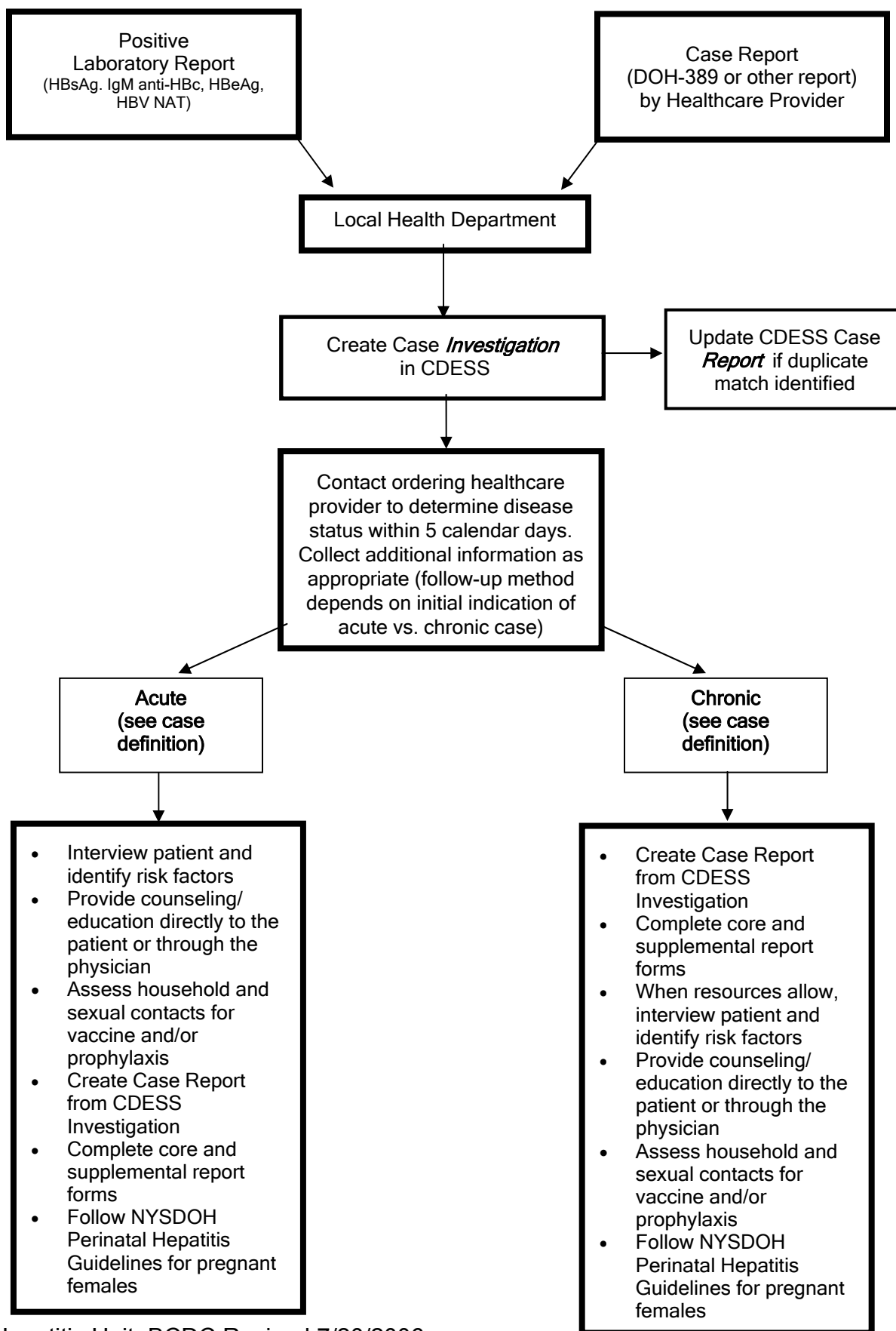
- No specific treatment is currently available for **acute** HBV infection.
- Interferon alpha-2b, Lamivudine, Adefovir, pegylated interferon alpha-2a, and Entecavir are the five drugs licensed for treatment of **chronic** HBV infection. These drugs are effective in clearing the virus in up to 40% of patients.
- The decision to initiate antiviral therapy should be made in conjunction with a specialist on an individualized basis.

Standard References:

1. Heymann, D editor. Control of Communicable Diseases Manual 2004, 18th edition. American Public Health Association. Wash., D.C.
2. Atkinson W, Wolfe C, editors. Epidemiology and Prevention of Vaccine-Preventable Diseases. 7th edition. Atlanta: Centers for Disease Control and Prevention; 2002. pp.169-189.

Select References:

1. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. Recommendations of the Advisory Committee on Immunizations Practices (ACIP). MMWR 1991;40(RR-13): 1-25.
2. CDC. Updated U.S. Public Health Services guidelines for the management of occupational exposures to HBV, HCV, and HIV and recommendations for post exposure prophylaxis. MMWR 2001;50(RR-11): 1-42.
3. Advisory Committee on Immunization Practices. Provisional Recommendations for Hepatitis B Vaccination of Adults, October 2005. Available online at www.cdc.gov/nip/recs/provisional_recs/hepB_adult.pdf.



I. Purpose of Surveillance and Reporting

The identification of persons infected with hepatitis B virus is an important public health activity. Surveillance systems can aid in the reduction of secondary transmission of disease, and in the investigation of disease outbreaks. In addition, surveillance and reporting assist in the following public health activities:

- Identify household and sexual contacts of HBV-infected patients and ensure vaccine and post-exposure prophylaxis are received where appropriate.
- Identify HBV-infected persons to aid in the investigation of possible nosocomial or iatrogenic transmission of HBV.
- Identify HBV-infected pregnant women and ensure vaccine, post-exposure prophylaxis and medical management are received by their newborns according to the Perinatal Hepatitis B Prevention Program guidelines.
- Ensure that HBV-infected persons are educated on the need for medical evaluation and how to reduce disease progression, and to provide referrals to medical or support services.
- Determine the prevalence of HBV in specific populations and geographic locations to ascertain the need for HBV prevention and services.
- Build a chronic disease registry to support public health programs, case investigations and prevention programs.

II. Surveillance and Reporting Requirements**1. What to investigate**

- Investigation should be initiated within 5 calendar days of receipt of the following reports (for persons not previously reported):
 - Positive laboratory report for:
 - HBsAg
 - IgM anti-HBc
 - HBV Nucleic Acid Test (i.e., DNA)
 - HBeAg
 - HBV Genotype
 - DOH 389 report of a hepatitis B case
- Create Case Investigation on CDESS

2. Case Ascertainment

- All positive laboratory reports and DOH 389 HBV reports should be investigated, first, by contacting the patient's healthcare provider to determine the disease status (acute or chronic).
- For female patients of childbearing age (11-55), determine if patient is pregnant. For pregnant carrier hepatitis B cases, follow the established reporting guidelines set forth by the NYSDOH Immunization Program. In addition, the patient should be reported as a Chronic Hepatitis B Case on CDESS (note, Pregnant Carriers are no longer a distinct disease category in CDESS) following the established case status reporting guidelines for Chronic Hepatitis B Virus.
- Suggested method of physician contact:
 - IgM anti-HBc or other positive HBV report plus elevated ALT: Contact the physician by phone as soon as possible.
 - All other positive laboratory reports or DOH 389: NYSDOH Dear Doctor Letter (sample letter included in this document). The Dear

Doctor Letter Form elicits the collection of all necessary information needed to report the case.

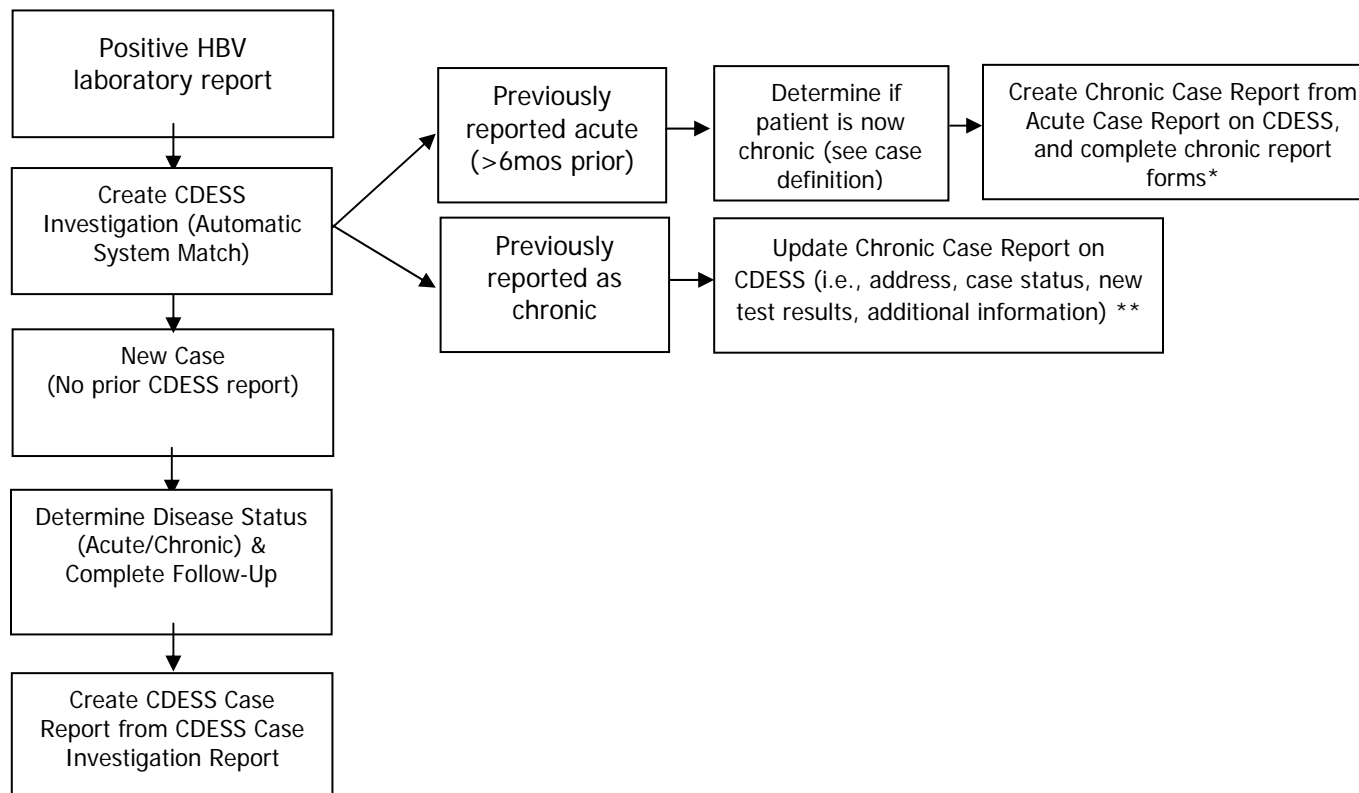
- Where resources allow, a phone call to ordering physician's office for case ascertainment of positive HBsAg reports to determine acute or chronic disease status may assist in timely identification of acute HBV cases.
- Verify that the case meets either the acute or chronic case definition (see CDC Case Definitions) and then determine the appropriate case status (i.e., confirmed, probable).
- **Priority** for case ascertainment should be given to the following:
 - cases that appear to be acute (e.g., IgM positive)
 - women of childbearing age (11-55 years of age)
 - Follow the NYSDOH Perinatal Hepatitis B Guidelines if a pregnant female tests positive for HBsAg.
 - blood donors (where primary care provider is known)
 - those tested in the public sector (e.g., LHD STD Clinics)
 - those under the age of 20 and over the age of 49

3. Acute Case Investigation

- *Additional (Continued) Provider Follow-up:*
 - Once the case has been confirmed as acute, obtain additional information from the provider, including:
 - Risk factor(s) for infection during the six weeks to six months prior to onset of symptoms
 - Identify close contacts that need HBIG and/or vaccine (see page 29 for post-exposure prophylaxis information).
 - Determine if patient/close contacts have been given education and counseling information
 - The NYSDOH Acute HBV supplemental reporting form is recommended for provider/patient interviews (the most up-to-date version can be found on the HIN at <https://commerce.health.state.ny.us/hin/ctrldocs/confcase/forms/cdessforms.html>).
- *Patient Follow-up:*
 - A patient phone interview is necessary to verify information obtained from the provider and to obtain any additional information that the provider did not have. The information is necessary to complete the acute HBV supplemental reporting form and to identify close contacts. It is important that the following information is ascertained:
 - Risk factor(s) for infection during the six weeks to six months prior to onset of symptoms
 - Identify close contacts that need HBIG and/or vaccine
 - Provide education and counseling as needed. Persons with acute hepatitis B should be advised to seek medical evaluation for the development of chronic infection (the detection of HBsAg >6 months after illness onset).
 - When conducting follow-up with patients **under the age of 18**, discuss with parent prior to interview.
 - Notify your Regional Epidemiologist if any of the following risk factors during the incubation period are identified:
 - Receipt of blood or blood products
 - Hemodialysis
 - Hospitalization, surgery or other medical or dental procedures
 - Other invasive procedures

- For acute cases **aged 70 and over**, in an attempt to determine the risk of becoming infected with hepatitis B through healthcare-related exposures, the CDC is requesting the following information be collected during the patient/provider interview:
 1. During the 6 weeks to 6 months before illness onset, was the patient hospitalized, including day surgery or procedures (i.e, colonoscopy, cataract surgery, etc)?
 2. During the 6 weeks to 6 months before illness onset, did the patient receive IM (intramuscular) injections? IV (intravenous) infusions?
 3. During the 6 weeks to 6 months before illness onset, did the patient use a finger stick device at home or have phlebotomy or finger stick blood draw in the outpatient setting?
 4. During the 6 weeks to 6 months before illness onset, was the patient in a nursing home? If YES, did the patient have multiple finger sticks in the nursing home?
4. Chronic Case Investigation
- *Additional (Continued) Provider Follow-up:*
 - Once the case has been confirmed as chronic, obtain additional information, as needed to complete the Chronic HBV supplemental reporting form.
 - *Patient Follow-up:*
 - Where resources allow, interview newly identified chronic patients to complete the Chronic HBV supplemental reporting form.
 - Where resources allow, provide education and counseling information, as needed.
 - Patient education and counseling may be done through the patient's physician or through direct contact with the patient by phone or by mail.
 - Chronic HBV Case Reports with no evidence of education and counseling provided by either the provider or the LHD will prompt an educational packet to be mailed to the patient by the NYSDOH (see the NYSDOH Patient Education Packet Section of this document).
5. Case Reporting
- LHD Communicable Disease staff should determine the disease (acute or chronic) and case (confirmed, probable, suspect, unknown) status prior to creating a case report on CDESS (see case definitions and case status definitions provided in this document).
 - **Acute Case Reporting**
 - Acute HBV Case Investigations on CDESS should be converted to Case Reports on CDESS for all **confirmed and probable** acute HBV cases. Cases should not be created until the investigation is complete.
 - Complete both the Confidential Case Report Form and supplemental acute HBV reporting forms.
 - **Chronic Case Reporting**
 - Chronic HBV Case Investigations on CDESS should be converted to Case Reports on CDESS for **all chronic cases, regardless of the case status**, once the investigation is complete.

- Complete the Confidential Case Report Form on CDESS.
- Complete, at a minimum, the following information on the Chronic Hepatitis B Supplemental Form:
 - Ordering physician name and phone number
 - Test(s) date
 - Test(s) type
 - Test(s) results
- Complete any known risk factor information on the supplemental form.
- ***Undetermined Disease Status with positive HBsAg***
 - According to the CDC Guidelines for Viral Hepatitis Surveillance and Case Management (June 2002), a database should be maintained for persons testing positive for HBsAg for which disease status cannot be confirmed (i.e., acute vs. chronic), clinical picture is unknown, and physician did not respond to follow-up attempts. The NYSDOH is using the Hepatitis Tracking System within CDESS to serve as the statewide database, in accordance with the CDC Guidelines for Viral Hepatitis Surveillance and Case Management. These cases should be reported as chronic hepatitis B with “unknown” case status selection on the confidential case report screen.



Upon receipt of a positive hepatitis B laboratory report (i.e., HBsAg, IgM anti-HBc, HBeAg, HBV NAT) via ECLRS, **create a CDESS investigation** by going to CDESS Main Menu/Transfer ECLRS Records/Summary of ECLRS Records Available for Transfer to CDESS/Create an investigation.

Upon receipt of a paper laboratory or case report, **manually** create an investigation on CDESS by using the Initiate a new CD/STD/TB case/investigation from the Main Menu. Hepatitis B investigations should always be created with the disease code “**Generic**” and then changed to Chronic or Acute at the completion of the investigation, when creating the case report.

NOTE: If **manually** entering the investigation (not from the ECLRS to CDESS Transfer Summary), the Validation Search screen will open first. Enter the patient's name, DOB and generic disease.

* If the acute case was reported by another LHD and the case is now chronic and resides in your jurisdiction, you will need to manually enter a chronic case for this patient as acute records cannot be transferred from one LHD to another.

** If the chronic case was reported by another LHD and the case now resides in your jurisdiction, you will need to request that the case be transferred to your LHD by the owning county.

Confirmed CSTE/CDC Case Definition (Effective 2000)**Clinical Criteria:**

Acute illness with:

- discrete onset of symptoms (e.g., fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting), and
- jaundice or elevated serum aminotransferase (ALT) levels

AND

Laboratory Criteria:

- IgM anti-HAV negative (if done), and
- IgM anti-HBc positive or HBsAg positive

Probable (NYSDOH, Effective 1/1/05)**Clinical Criteria:**

- Jaundice or elevated serum aminotransferase (ALT) levels
- Does not have to have a discrete onset of symptoms (e.g., fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting)

AND

Laboratory Criteria:

- IgM anti-HAV negative (if done), and
- IgM anti-HBc positive or HBsAg positive

OR

A clinically compatible case, where laboratory testing has not been performed, that is epidemiologically linked to a confirmed case of hepatitis B virus (i.e., sexual, household, or needle-sharing contact with an infected person during the 6 weeks to 6 months prior to onset of symptoms).

CDC/CSTE Case Definition (Effective 1/1/2007)**Clinical Criteria:**

- Persons with chronic HBV infection may have no evidence of liver disease or may have a spectrum of disease ranging from chronic hepatitis to cirrhosis or liver cancer. Persons with chronic infection may be asymptomatic.

Laboratory Criteria:

- IgM anti-HBc negative, and
- Positive result for one of the following tests: HBsAg, HBeAg, or HBV Nucleic Acid Test (NAT)

OR

- HBsAg positive or HBV NAT positive, or HBeAg positive two times at least 6 months apart (any combination of these tests performed 6 months apart is acceptable).

Case Status Classification:

- **Confirmed:** a case that meets either laboratory criteria for diagnosis
- **Probable:** a case with a single HBsAg positive or HBV NAT positive or HBeAg positive lab results when no IgM anti-HBc results are available.

NOTES: All reported chronic cases should fit into the confirmed or probable case status classifications. NYSDOH has determined that there is no longer a need for case status classifications of suspect and unknown for chronic hepatitis B due to changes in the CDC/CSTE case definitions effective January 1, 2007.

- A. Positive IgM anti-HBV, HBsAg, or HBV DNA test results reported via the ECLRS system are periodically matched against CDESS to verify that the case has been reported. If the case is not reported via CDESS within 60 days, the LHD Communicable Disease Coordinator will be sent a follow-up letter. An example of the letter is provided below.

TO: Communicable Disease Coordinator
 FROM: Elena M. Rizzo*
 Hepatitis Surveillance Coordinator
 RE: Required Reporting of Hepatitis Cases
 DATE:

Enclosed is a copy of one or more positive hepatitis B laboratory reports for which our records indicate that no corresponding Confidential Case Report has been entered via CDESS for over 60 days from the date of the report. If all case requirements for reporting either an acute or a chronic hepatitis case are met for this patient, the case should be reported via CDESS.

If your records indicate that this case has already been reported via CDESS, please indicate the appropriate information below.

If your records indicate that the case does not meet the criteria for either an acute or a chronic hepatitis case, or that the case is not reportable by your health department, please provide the reason that the case is not reportable below. For example, (1) the case does not meet all reporting requirements; (2) the patient resides in another county and should be reported by that county health department; (3) the case falls under the jurisdiction of the New York City Health Department.

Please FAX this form to the Statistical Unit at (518) 474-4880.

Thank you for your assistance.

NAME:	DISEASE:	CASE REPORT SERIAL NUMBER: _____
		REASON NOT REPORTABLE: _____
NAME:	DISEASE:	CASE REPORT SERIAL NUMBER: _____
		REASON NOT REPORTABLE: _____
NAME:	DISEASE:	CASE REPORT SERIAL NUMBER: _____
		REASON NOT REPORTABLE: _____
NAME:	DISEASE:	CASE REPORT SERIAL NUMBER: _____
		REASON NOT REPORTABLE: _____
NAME:	DISEASE:	CASE REPORT SERIAL NUMBER: _____
		REASON NOT REPORTABLE: _____

***Please direct any questions to the Statistical Unit, Division of Epidemiology at (518) 474-0548.**

- B. Hepatitis B case reports are monitored weekly to ensure that new cases entered on CDESS meet the case status definition as reported. The Statistical Unit or Regional Surveillance Officer will contact LHDs for further information or to inform of case status changes as needed.
- C. NYSDOH Staff may periodically transfer case reports to another LHD if there is evidence that the patient has moved to another LHD jurisdiction. Duplicate records may be “revoked.” Explanation of why the case has been transferred or revoked will appear in the comments field of the CDESS report.

Recommended Postexposure Prophylaxis for Exposure to Hepatitis B Virus

Vaccination and antibody status of exposed person*		Treatment		
		Source HBsAg** Positive	Source HBsAg** Negative	Source unknown or not available for testing
Unvaccinated		HBIG ⁰ X 1 and initiate HB vaccine series	Initiate HB vaccine series	Initiate HB vaccine series
Previously Vaccinated	Known Responder ¹	No treatment	No treatment	No treatment
	Known Nonresponder ²	HBIG X 1 and initiate revaccination or HBIG X 2 ³	No treatment	If known high-risk source, treat as if source were HbsAg positive.
	Antibody response unknown	Test exposed person for anti-HBs ^a – If adequate ¹ , no treatment is necessary – If inadequate ² , administer HBIG X 1 and vaccine booster	No treatment	Test exposed person for anti-HBs – If adequate ¹ , no treatment is necessary – If inadequate ² , administer vaccine booster and recheck titer in 1-2 months

* Persons who have previously been infected with HBV are immune to reinfections and do not require post exposure prophylaxis

** Hepatitis B surface antigen

⁰ Hepatitis B immune globulin, dose is 0.06 mL/kg and administered intramuscularly

¹ A responder is a person with adequate levels of serum antibody to HBsAg (i.e. anti HBs \geq 10mIU/mL)

² A nonresponder is a person with inadequate response to vaccination (i.e. serum anti HBs<10mIU/mL)

³ The option of giving one dose of HBIG and reinitiating the vaccine series is preferred for nonresponders who have not completed a second 3-dose vaccine series. For persons who previously completed a second vaccine series but failed to respond, two doses of HBIG are preferred.

^a Antibody to HBsAg.

Source: *MMWR* 2001; 50(RR-11) pg 22.

Hepatitis B Panel Serology

Marker	Abbreviation(s)	Definition
Hepatitis B surface antigen	HBsAg	Marker of infectivity. Its presence indicates either acute or chronic HBV infection.
Antibody to hepatitis B surface antigen	anti-HBs or HBsAb	Marker of immunity. Its presence indicates an immune response to HBV infection or an immune response to vaccination.
Total (IgM and IgG) antibody to hepatitis B core antigen (anti-HBc)	anti-HBc or HBcAg	Marker of acute, chronic, or resolved HBV infection. Not a marker of vaccine-induced immunity.
IgM antibody subclass of anti-HBc	IgM anti-HBc	Marker of acute HBV infection. Presence indicates recent infection (≤ 6 months).
IgG antibody subclass of anti-HBc	IgG anti-HBc	Marker of past or current infection with HBV. Its presence together with presence of HBsAg indicate chronic HBV infection in the absence of IgM anti-HBc. Its presence without the presence of HBsAg indicates past infection.
Hepatitis B “e” antigen	HBeAg	Marker of high degree of HBV infectivity and correlates with high level of HBV replication. Primarily used to determine clinical management of patients with chronic HBV infections.
Antibody to hepatitis B “e” antigen	anti-HBe or HBeAb	Marker of infection or immunity. In persons with chronic HBV infection, its presence suggests a low viral titer and low degree of infectivity.
HBV Deoxyribonucleic acid	HBV DNA* or HBV NAT	Marker of viral replication. It correlates with infectivity and is used to assess and monitor the treatment of patients with chronic HBV infection.

*Note: The HBV DNA should not be confused with the HCV bDNA (hepatitis C virus branched DNA) test.

Source: Immunization Action Coalition. “Hepatitis B Facts: Testing and Vaccination,” available at www.immunize.org/catg.d/p2110.pdf.

Tests	Results	Interpretation
HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative negative positive with ≥ 10 mIU/mL	Immune due to vaccination
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected*
HBsAg anti-HBc anti-HBs	negative positive negative	Four interpretations possible [†]

* Please refer to the case definition for Chronic Hepatitis B.

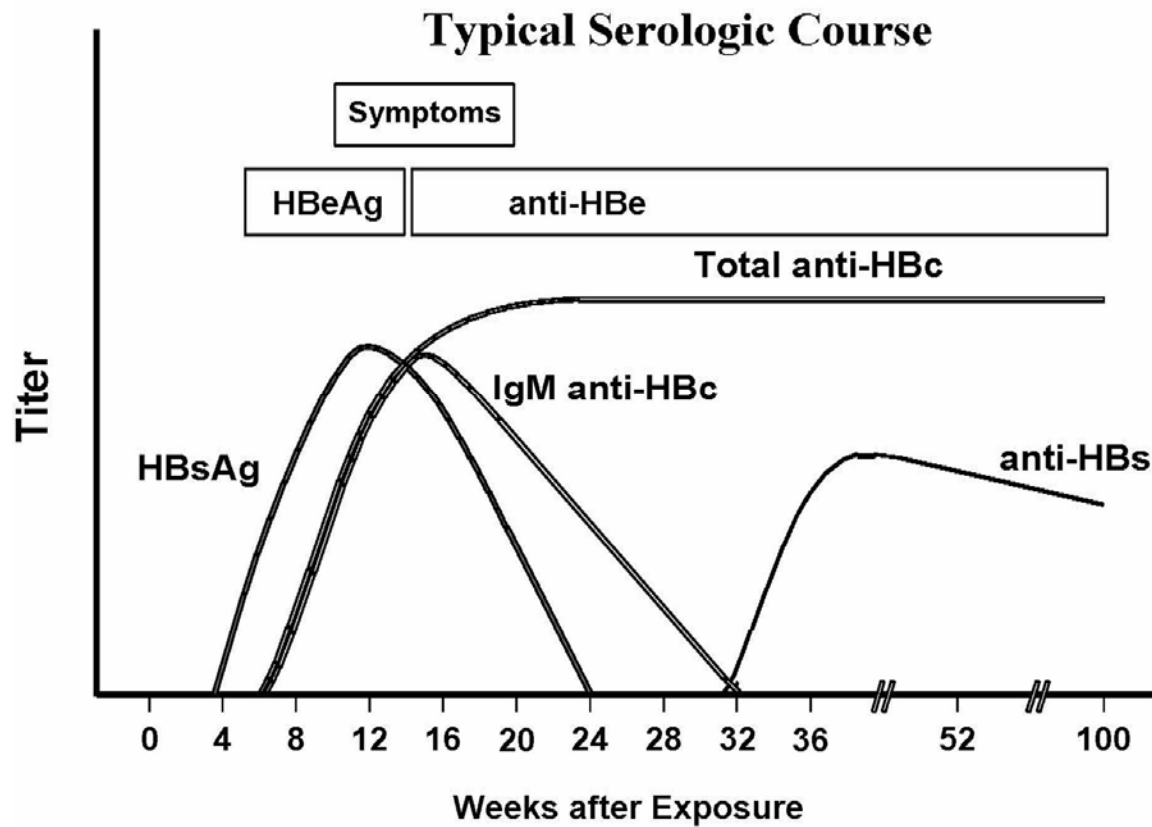
- †1. May be recovering from recent HBV infection and has not mounted a complete immune response yet. (In blood donors, this explanation is extremely rare.)
- †2. May be distantly immune and the test is not sensitive enough to detect a very low level of anti-HBs.
- †3. May be uninfected with a "false positive" anti-HBc. (In blood donors, this is the case about 80% of the time.)
- †4. May be an undetectable level of HBsAg present in the blood and the person is actually a carrier. (This is extremely rare.)

Special Circumstances

- In approximately 2 - 3 percent of chronically infected individuals, HBsAg and HBsAb (anti-HBs) are present. This represents incomplete resolution of chronic infection or reinfection with a second subtype (genotype) of HBV¹.
- While IgM anti-HBc is a marker of new acute infection, persons who are chronically infected with HBV may experience a flare of the IgM anti-HBc, showing positivity. To determine acute versus chronic infection in this case, the IgG anti-HBc result must be known. IgG anti-HBc will be positive in chronic infection, and negative in new acute infection².
- Persons can be infected with hepatitis B, even though they test HBsAg negative. Infections in which a person tests positive for HBV nucleic acid but negative for HBsAg are known as occult hepatitis B infections. Occult HBV infections are more prevalent in individuals that are hepatitis C positive and persons that are on hemodialysis^{2, 3, 4}.

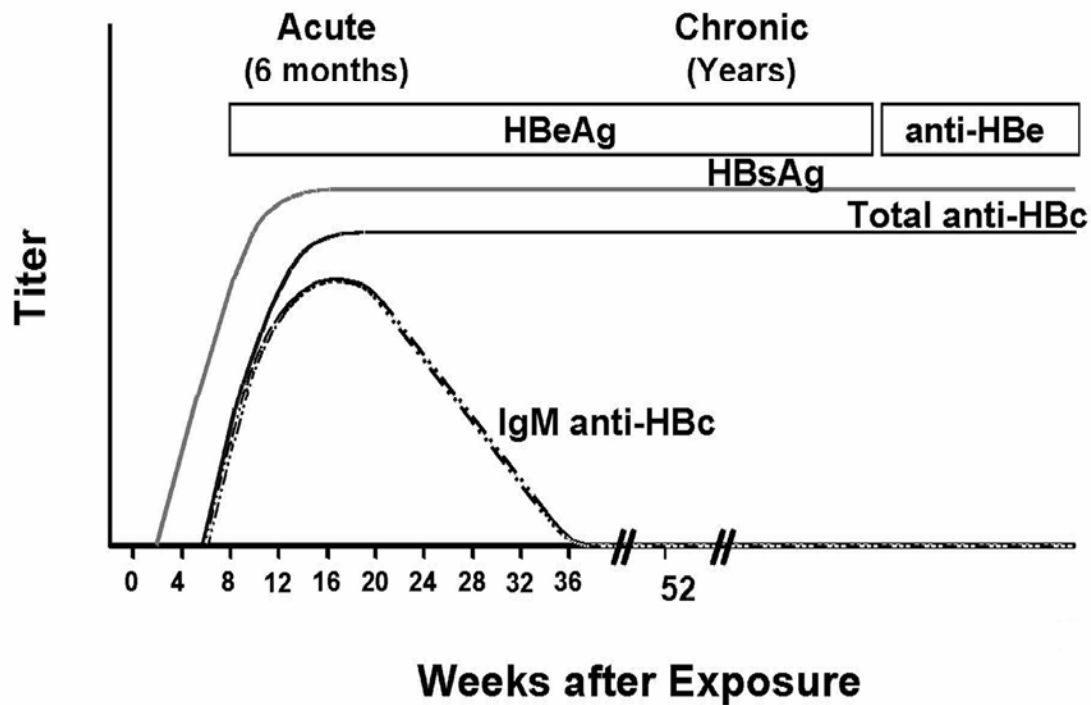
- Margolis HS, Miriam AJ, Hadler SC. Viral Hepatitis. In: Evans AS, Kaslow RA, eds. Viral Infections in Humans, Epidemiology and Control. 4th ed. New York: Plenum Publishing Corporation; 1997: 375-386.
- Robinson WS, Hepatitis B Virus and Hepatitis D Virus In: Mandell GL, Bennett JE, Dolin R, eds. Principles and Practices of Infectious Diseases. 5th ed. Philadelphia: Churchill Livingstone; 2000: 1652-1685.
- Paterlini P, Gerken G, Nakajima E et al. Polymerase chain reaction to detect hepatitis B virus DNA and RNA sequences in primary liver cancers from patients negative for hepatitis B surface antigen. N Engl J Med 1990; 323: 80-85.
- Dueymes JM, Bodenes-Dueymes M, Mahe JL, Herman B. Detection of hepatitis B viral DNA by polymerase chain reaction in dialysis patients. Kidney Int 1993; 41 (Suppl.):S161-166.

Acute Hepatitis B Virus Infection with Recovery



Source: Centers for Disease Control and Prevention

Progression to Chronic Hepatitis B Virus Infection Typical Serologic Course



Source: Centers for Disease Control and Prevention

The Hepatitis Unit has evaluated tools for LHDs to use in the follow-up of hepatitis B and C reports. From July 1, 2002 to December 31, 2002, eleven LHDs participated in a pilot project to evaluate the effectiveness of using a "Dear Doctor Letter" to follow-up on hepatitis C laboratory and DOH 389 reports. Results show an overall six-month response rate of 73 percent, with no direct correlation of response rate to the LHD's population size. Based on the evaluation of the project, and revised CDC reporting forms for viral hepatitis, the Hepatitis Unit has revised the Hepatitis B Dear Doctor Letter and created a dear doctor letter for use with hepatitis B reports. While each LHD will have different response rates, the pilot project evaluation shows that the use of a dear doctor letter is an effective initial method of follow-up.

Suggested protocol for the use of a dear doctor letter is as follows:

1. Request an electronic version of the dear doctor letter and form from the NYSDOH Hepatitis Unit (by phone at 518-473-4439 or by email at hepatabc@health.state.ny.us). The Dear Doctor Letter is also available on the HIN at <https://commerce.health.state.ny.us/hin> in the Program Area, Communicable Disease/Hepatitis.
2. Revise the letter and form with your LHD contact information where appropriate and place the letter on LHD letterhead.
3. Consider specifying the test type on the cover letter to the physician and completing all available demographic information on the form prior to mailing to the physician.
4. Establish a system for tracking the date a letter is mailed to a physician and the physician contact information.
5. If the letter is not returned within 21-days, follow-up with the physician through a telephone call. Physicians are often too busy to answer calls, so it might be worthwhile to attempt to speak to the physician's assistant or nurse.
6. The Dear Doctor Form has been developed in an effort to standardize the data collected for hepatitis B cases statewide. Cover letters may be edited, as the LHD feels appropriate; however, the NYSDOH recommends that the reporting form remain consistent. The patient education questions on the form may be altered based on LHD protocol (i.e., LHD may choose to provide the counseling messages to physician rather than direct contact with the patient).

[County Letterhead]

Dear Doctor:

The _____ Health Department has received a positive **hepatitis B virus (HBV)** laboratory result for your patient, _____. **New York State Public Health Law mandates that laboratories and physicians report hepatitis A, B, and C cases to the county health department where the patient resides.** The Centers for Disease Control and Prevention (CDC) recommends that isolated hepatitis B surface antigen tests (HBsAg) be verified by a confirmatory assay (e.g., neutralization assay) to rule out false positive results.

Please complete the attached, two-sided form as completely as possible. **Questions marked with an asterisk (*) are required for the County Health Department to report the case.** The risk factor section should be completed for chronic cases only. Our staff will conduct acute case investigation in further detail.

Please return the form within 21-days by mail or by fax to the _____ County Health Department at the above address or fax to _____. If you have any questions regarding hepatitis B, please call us at _____.

Thank you for your assistance.

Sincerely,

[NAME]
[TITLE]

Please note the following case definitions:

Acute Hepatitis B CSTE/CDC Case Definition (Effective 2000)

Clinical Criteria:

Acute illness with:

- discrete onset of symptoms (e.g., fatigue, abdominal pain, loss of appetite, intermittent nausea, vomiting), and
- jaundice or elevated serum aminotransferase (ALT) levels

AND

Laboratory Criteria:

- IgM anti-HAV negative (if done), and
- IgM anti-HBc positive or HBsAg positive

Chronic Hepatitis B CSTE/CDC Case Definition (Effective 1/1/2007)

Clinical Criteria:

- Persons with chronic HBV infection may have no evidence of liver disease or may have a spectrum of disease ranging from chronic hepatitis to cirrhosis or liver cancer. Persons with chronic infection may be asymptomatic.

Laboratory Criteria:

- IgM anti-HBc negative, and
- Positive result for one of the following tests: HBsAg, HBeAg, or HBV Nucleic Acid Test (NAT)

OR

- HBsAg positive or HBV NAT positive, or HBeAg positive two times at least 6 months apart (any combination of these tests performed 6 months apart is acceptable).

NOTE: Questions marked by an asterisk (*) are required for the County Health Department to report the case. Please verify any completed information.

PATIENT INFORMATION

*Last Name: _____ *First Name: _____ MI: _____ Phone: (____) _____

*Address Street: _____ *City: _____ *Zip: _____

*DOB: ____/____/____

Sex: ☐ M ☐ F

Is the patient pregnant? ☐ Yes ☐ No

Due Date: ____/____/____

Occupation/Setting: ☐ Food Service

☐ Day Care

☐ Health Care

☐ Student/School

☐ Inmate

☐ Unknown

☐ Other: _____

***Please verify the status of the case and complete the appropriate corresponding sections below (refer to case definitions):** ☐ Acute (Confirmed) ☐ Chronic (Confirmed) ☐ Chronic (Probable)

☐ Not a case (please stop here and return form)

Is the patient aware of their hepatitis B status? ☐ Yes ☐ No

Education: ☐ The patient has been provided education regarding hepatitis B.

Race:

☐ White

☐ Black/African American

☐ American Indian or Alaska native

☐ Asian

☐ Native Hawaiian/Pacific Islander

☐ Other, specify: _____

☐ Unknown

Ethnicity:

☐ Hispanic or Latino

☐ Not Hispanic or Latino

☐ Unknown

Reason for testing (check all that apply):

☐ Symptoms of acute hepatitis

☐ Evaluation of elevated liver enzymes

☐ Screening for asymptomatic patient with reported risk factors

☐ Blood/organ donor screening

☐ Screening of asymptomatic patient with no risk factors (e.g., patient requested)

☐ Follow-up testing for previous marker for viral hepatitis

☐ Prenatal screening

☐ Other, specify: _____

DIAGNOSTIC TESTS

	*TEST DATE	Pos	Neg	Unk
IgM anti-HAV	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HBsAg	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
anti-HBc (total)	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
IgM anti-HBc	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HBV NAT (e.g., DNA)	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT [SGPT]: _____	____/____/____			
AST [SGOT]: _____	____/____/____			

Please list any other viral hepatitis test results or attach a copy of the laboratory report(s) to this form.

Test Type:

Date:

Result:

____/____/____

____/____/____

CLINICAL DATA

Diagnosis Date: ____/____/____

Was the patient symptomatic?

Onset Date:

____/____/____

Yes

No

Unk

☐

☐

☐

Was the patient jaundiced?

Onset Date:

____/____/____

☐

☐

☐

Was the patient hospitalized for hepatitis?

Date of hosp:

____/____/____

☐

☐

☐

Did the patient die from hepatitis?

Date of death:

____/____/____

☐

☐

☐

RISK FACTORS -- Please complete this section for CHRONIC case ONLY:

The following questions are provided as a guide for the investigation of lifetime risk factors for HBV infection. Routine collection of risk factor information for persons who test HBV positive is not required. However, collection of risk factor information may provide useful information for the development and evaluation of programs to identify and counsel HBV-infected persons.

	Yes	No	Unk
Was the patient ever on long-term hemodialysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever injected drugs not prescribed by a doctor, even if only once or a few times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient had multiple sexual partners? If yes, how many (approximate lifetime)? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever treated for a sexually transmitted disease (STD)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever incarcerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever a contact of a person who had hepatitis? If yes, type of contact:			
Sexual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Household (non-sexual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever employed in a medical or dental field involving direct contact with human blood?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient ever have a needlestick exposure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever had a tattoo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever had a body piercing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your cooperation.

Name of person completing form: _____ Date: ____/____/____

Please return this form and any additional laboratory results by mail or by fax to:

X County Health Department

CD Staff Name

Address

Phone

FAX

In January 2005, the Centers for Disease Control and Prevention (CDC) revised its *Guidelines for Viral Hepatitis Surveillance and Case Management*, which describe the essential elements and best practices for conducting surveillance for viral hepatitis and case management (i.e., providing education and counseling and medical referral). The guidelines state that chronic patients should be advised regarding how to reduce their risk of transmitting HBV to others and how to reduce further liver injury, and should be referred for medical evaluation and management.

To address the needs of patient education and counseling among NYS residents, the NYSDOH Hepatitis Unit developed a patient packet which includes a patient cover letter (with no patient names on the letter) explaining that the NYSDOH was notified of their chronic disease, as is required by law, by either the laboratory or their physician.

In 2006, the NYSDOH Hepatitis Unit began doing a monthly mailing of the HBV education packet to patients reported to the NYSDOH chronic HBV registry, who meet the following criteria:

- Patients reported to the registry with **confirmed** chronic hepatitis B virus infection at least 60 days or more days prior to the mailing
- Patients reported to the registry for whom the case report indicates that education and counseling **have not been provided** either by the physician or the LHD
- Those aged 18 years and over, and
- Those that are not inmates.

For your reference, the chronic HBV Patient Education Packet can be found on pages 40-48 of this document.



STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

Dear Sir or Madam,

The purpose of this letter is to provide you with information that may benefit your health. To improve the health of New Yorkers, the New York State Department of Health has established the Viral Hepatitis Disease Registry. The role of the registry is to help better understand the extent and causes of viral hepatitis infection among New York State residents and convey useful information regarding the condition to affected persons.

As required by longstanding New York State regulations, laboratories and physicians are asked to report persons who test positive for hepatitis B virus to the Viral Hepatitis Disease Registry. Be assured that the confidentiality of all information provided to the Viral Hepatitis Disease Registry is strictly protected by Public Health Law and that the registry data can only be used for approved research and the improvement of health care. No names or other personal identifiers are publicly disclosed in these activities.

You may have already received information on hepatitis B virus from your physician; however, we have gathered some additional information that you might find helpful.

- See your doctor regularly.
- Take care of your liver by avoiding alcohol and medications that may be harmful to the liver (discuss all medications that you are taking with your doctor).
- Get vaccinated against hepatitis A virus to prevent further liver damage. Discuss this with your doctor, or call your local health department to find out where you can receive this vaccination (see the enclosed directory).
- Tell your sex partner(s) you have hepatitis B virus so they can be tested and vaccinated (if not already infected).
- Hepatitis B virus can be spread through having sex with an infected person without using a condom (the effectiveness of latex condoms in preventing infection with hepatitis B virus is unknown, but their proper use might reduce transmission).
- Tell household members you have hepatitis B virus so that they can be tested and vaccinated (if not already infected).
- If you are pregnant, tell your doctor that you have hepatitis B infection. It is critical that your baby is started on the hepatitis B virus vaccine and immunoglobulin shots within a few hours of birth.
- Read the enclosed information to learn more about the virus, taking care of your liver, and preventing the spread of hepatitis B virus to others.

If you have any questions about your health, please contact your doctor. You may also contact your local health department (see the enclosed directory). For general information about hepatitis B, you may call 1-888-4-HEP-CDC or visit the New York State Department of Health website at <http://www.health.state.ny.us/diseases/communicable/hepatitis>. The New York State Department of Health Viral Hepatitis Disease Registry may be reached at 518-486-2938.

Sincerely,

Elena M. Rizzo, M.A.
Hepatitis Surveillance Coordinator
Bureau of Communicable Disease Control

Communicable Disease

New York State Department of Health

Hepatitis B

What is hepatitis B?

Hepatitis B is a liver disease caused by the hepatitis B virus (HBV). The virus can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.

Who gets hepatitis B?

One out of 20 people in the United States will get infected with HBV some time during their lives. Anyone can get hepatitis B, but you are at greater risk if you:

- have sex with someone infected with HBV
- have multiple sex partners
- are a man and have sex with men
- have ever been diagnosed with a sexually transmitted disease
- are an injection drug user
- live in the same house with someone who has lifelong (chronic) HBV infection
- are a healthcare or public safety worker who has contact with human blood
- are an infant born to an HBV-infected mother
- are a hemodialysis patient
- are an infant/child or immigrant from areas with high rates of infection

How is the virus spread?

Hepatitis B virus can be found in the blood and, to a lesser extent, saliva, semen and other body fluids of an infected person. It is spread by direct contact with infected body fluids; usually by needle stick injury or sexual contact. Hepatitis B virus is not spread by casual contact.

What are the symptoms of hepatitis B?

The symptoms of hepatitis B include fatigue, poor appetite, stomach pain, fever, nausea, vomiting and occasionally joint pain, hives or rash. Urine may become darker in color, and then jaundice (a yellowing of the skin and whites of the eyes) may appear. Adults are more likely than children to develop symptoms; however, up to 50 percent of adults who have acute infection do not have any symptoms,

How soon do symptoms appear?

The symptoms may appear six weeks to six months after exposure, but usually within four months.

For how long is a person able to spread the virus?

The virus can be found in blood and other body fluids several weeks before symptoms appear and generally persists for several months afterward. Approximately 10 percent of infected adults may become long-term (chronic) carriers of the virus. Infants infected at birth have a 90 percent chance of becoming chronically infected.

What is the treatment for hepatitis B?

There are no special medicines or antibiotics that can be used to treat a person that is acutely infected once the symptoms appear. Generally, bed rest is all that is needed. Interferon is the most effective treatment for chronic HBV infection and is successful in 25 to 50 percent of cases. Chronic carriers of HBV should avoid drinking alcohol or taking medications which are harmful to the liver, as these actions can make the liver disease worse.

What precautions should chronic hepatitis B carriers take?

Chronic hepatitis B carriers should follow standard hygienic practices to ensure that close contacts are not directly contaminated by his or her blood or other body fluids. Carriers must not share razors, toothbrushes or any other object that may become contaminated with blood. In addition, susceptible household members, particularly sexual partners, should be immunized with hepatitis B vaccine. It is important for carriers to inform their dentist and health care providers.

How can hepatitis B be prevented?

A safe and effective vaccine to prevent hepatitis B is available. The hepatitis B vaccine is recommended for people in high-risk settings who have not already been infected and for infants who are born to infected mothers. It is recommended that all children and adolescents be vaccinated against hepatitis B along with their routine childhood immunizations beginning at birth. A special hepatitis B immune globulin is also available for people who are exposed to the virus. In the event of exposure to hepatitis B, consult a doctor or the local health department.

IMMUNIZATION AND COMMUNICABLE DISEASE PROGRAM CONTACT INFORMATION FOR LOCAL HEALTH DEPARTMENTS IN NEW YORK STATE

Local Health Department	Immunization	General Communicable Disease Information
Albany County Health Department 175 Green Street Albany, New York 12201-0678	518-447-4589	518-447-4640
Allegany County Health Department County Office Building, 7 Court Street Belmont, New York 14813	585-268-9250	585-268-9250
Broome County Health Department 225 Front Street Binghamton, New York 13905	607-778-2870	607-778-2804
Cattaraugus County Health Department 1 Leo Moss Drive Olean, New York 14760-1154	716-373-8050	716-373-8050
Cayuga County Department of Health and Human Services 160 Genesee Street Auburn, New York 13021	315-253-1456	315-253-1560
Chautauqua County Health Department Hall R. Clothier Building Mayville, New York 14757	716-753-4491	716-753-4314
Chemung County Health Department 103 Washington Street Elmira, New York 14902-0588	607-737-2028	607-737-2028
Chenango County Health Department County Office Building 5 Court Street Norwich, New York 13815	607-337-1660	607-337-1668
Clinton County Health Department 133 Margaret Street Plattsburgh, New York 12901-2926	518-565-4848	518-565-4848
Columbia County Health Department 71 North Third Street Hudson, New York 12534	518-828-3358 ext. 1257	518-828-3358 ext. 1257
Cortland County Health Department Cortland County Office Building 60 Central Avenue Cortland, New York 13045-2746	607-753-5028	607-753-5035
Delaware County Public Health Nursing Service 99 Main Street Delhi, New York 13753	607-746-3166	607-746-3166
Dutchess County Health Department 387 Main Street Poughkeepsie, New York 12601	845-486-3924	845-486-3498
Erie County Health Department 95 Franklin Street, Room 910 Buffalo, New York 14202	716-858-67698	716-858-6071
Essex County Public Health Department 132 Water Street Elizabethtown, New York 12932-0217	518-873-3509	518-873-3500

Franklin County Public Health Services 355 West Main Street Malone, New York 12953	518-891-4471 ext. 3013	518-891-4471 x3004
Fulton County Public Health Department 2714 State Highway 29 Johnstown, New York 12095	518-736-5720	518-736-5720
Genesee County Public Health Department 3837 West Main Street Road Batavia, New York 14020	585-344-8506	585-344-2580
Greene County Public Health Nursing 159 Jefferson Heights, Ste A-201 Catskill, New York 12414	518-719-3603	518-719-3600
Hamilton County Public Health Nursing Service White Birch Lane Indian Lake, New York 12842	518-648-6497	518-648-6141
Herkimer County Public Health Nursing Service 301 North Washington Street Suite 2300 Herkimer, New York 13350-2910	315-867-1430	315-867-1176
Jefferson County Public Health Service 531 Meade Street Watertown, New York 13601	315-786-3720	315-786-3732
Lewis County Public Health Agency 7785 North State Street Lowville, New York 13367	315-376-5449	315-376-5449
Livingston County Department of Health 2 Livingston County Campus Mt. Morris, New York 14510	585-243-7299	585-243-7299
Madison County Department of Health Public Health Building, #5 Wampsville, New York 13163	315-366-2361	315-366-2361
Monroe County Health Department 111 Westfall Road Rochester, New York 14692	585-753-5150	585-753-5164
Montgomery County Public Health County Annex Building Fonda, New York 12068	518-853-3531	518-853-3531
Nassau County Department of Health 240 Old Country Road Mineola, New York 11501-4250	516-571-4923	516-571-3436
Niagara County Health Department 1001 11th Street, 3rd Floor, Nursing Niagara Falls, NY 14301	716-439-7456	716-439-7456
Oneida County Health Department 800 Park Avenue 9th Floor Utica, NY 13501	315-798-5747	315-798-5290
Onondaga County Department of Health 421 Montgomery Street Syracuse, New York 13202	315-435-3236	315-435-3236
Ontario County Public Health 3019 County Complex Drive Canandaigua, New York 14424-9514	585-396-4523	585-396-4343

Orange County Health Department 124 Main Street Goshen, New York 10924	845-291-4281	845-291-2375
Orleans County Health Department 14012 Route 31 West Albion, New York 14411	585-589-3269	585-589-3278
Oswego County Health Department 70 Bunner Street Oswego, New York 13126	315-349-3582	315-349-8358
Otsego County Dept of Health County Office Building 197 Main Street Cooperstown, NY 13326	607-547-4230	607-547-4230
Putnam County Health Department 1 Geneva Road Brewster, New York 10509	845-278-6558	845-278-6558
Rensselaer County Department of Health 1600 Seventh Avenue Troy, New York 12180	518-270-2669	518-270-2655
Rockland County Health Department 50 Sanatorium Rd, Bldg D Pomona, NY 10970-9990	845-364-2662	845-364-2663
St. Lawrence County Public Health Department 80 State Highway 310, Suite2 Canton, New York 13617-1476	315-386-2325	315-386-2325
Saratoga County Public Health Nursing Service 31 Woodlawn Avenue Saratoga Springs, New York 12866	518-584-7460	518-584-7460
Schenectady County Public Health Services 107 Nott Terrace Schenectady, NY 12305	518-346-2187	518-386-2824
Schoharie County Department of Health 276 Main Street Schoharie, New York 12157	518-295-8474	518-295-8474
Schuyler County Home Health Agency 106 S. Perry Street, Suite 4 Watkins Glen, New York 14891	607-535-8140	607-535-8140
Seneca County Health Department 31 Thurber Drive Waterloo, New York 13165	315-539-1920	315-539-1920
Steuben County Public Health and Nursing Services 3 East Pulteney Square Bath, New York 14810	607-664-2438	607-664-2438
Suffolk County Department of Health Services 225 Rabro Drive East Hauppauge, New York 11788-4290	631-853-2979	631-853-3055
Sullivan County Public Health Nursing Service 50 Community Lane Liberty, New York 12754	845-292-0100, Ext. 2703	845-292-0100
Tioga County Health Department 1062 State Rt. 38, P.O. Box 120 Owego NY 13827-0120	607-687-8593	607-687-8593

Tompkins County Health Department 401 Harris B. Dates Drive Ithaca, New York 14850-1386	607-274-6604	607-274-6604
Ulster County Health Department 300 Flatbush Avenue Kingston, New York 12401	845-340-3090	845-340-3090
Warren County Health Services 1340 State Route 9 Lake George, New York 12845	518-761-7690	518-761-6580
Washington County Public Health Services 415 Lower Main Street Hudson Falls, New York 12839-2650	518-746-2400	518-746-2400
Wayne County Public Health Service 1519 Nye Road, Suite 200 Lyons, New York 14489-9151	315-946-5749	315-946-5748
Westchester County Department of Health 145 Huguenot Street New Rochelle, New York 10801	914-813-5263	914-813-5159
Wyoming County Health Department 338 North Main Street Warsaw, New York 14569	585-786-8890	585-786-8890
Yates County Health Department 417 Liberty Street Suite 2120 Penn Yan, New York 14527	315-536-5160	315-536-5160

What should you know to keep others from getting infected with HBV?

- Your sex partner should get hepatitis B vaccine. If not, you should use latex condoms correctly every time you have sex. The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.
- All the people who live with you should get hepatitis B vaccine.
- Don't share anything that might have blood on it, such as a toothbrush or razor.
- If you shoot drugs, get help to stop or get into a treatment program. Don't share drugs, needles, syringes, cookers, cotton, water, or rinse cups. Get hepatitis A vaccine.



You cannot spread HBV by:

- Sneezing or coughing
- Kissing or hugging
- Breast feeding
- Food or water
- Sharing eating utensils or drinking glasses
- Casual contact (such as an office setting)

Persons depicted in these materials are models and used for illustrative purposes only.

**FOR INFORMATION ON
VIRAL HEPATITIS:**

access our website at:
<http://www.cdc.gov/hepatitis>

or call the
Hepatitis Information Line at
1.888.4HEPCDC
1.888.443.7232

or write
Centers for Disease Control and Prevention
Division of Viral Hepatitis, Mailstop G37
Atlanta, GA 30333

or
contact your state or local health department



DEPARTMENT OF HEALTH
& HUMAN SERVICES

Revised 8/03



**LIVING WITH
CHRONIC
HEPATITIS B**



Chronic hepatitis B is a life-long liver disease that can be spread to others.

What is Chronic (life- long) HEPATITIS B?

Chronic hepatitis B is a life-long liver disease caused by infection with the hepatitis B virus, HBV for short. Some people who get infected never get rid of the virus. They stay infected for life, and can spread HBV to others. If you have had other types of hepatitis, such as hepatitis A or hepatitis C, you can still get hepatitis B.

1.25 million people living in the United States have life-long hepatitis B. Not all people who are infected with HBV look or feel sick; they can have the virus and not have symptoms or know they're sick.

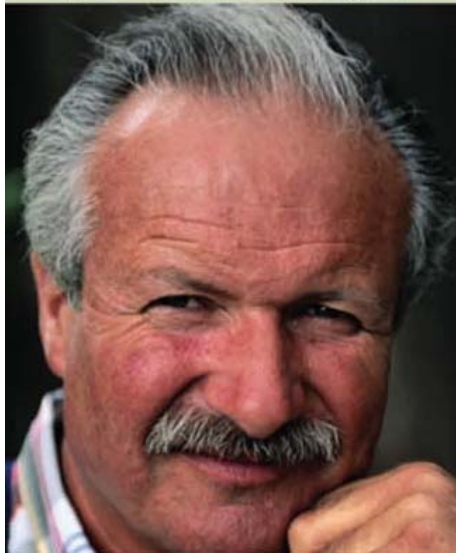
Life-long infection increases your chance of getting cirrhosis (si-RO-sis, that is, scarring) of the liver or liver cancer. Each year, 5,000 people die as a result of liver disease caused by HBV.



How could you have gotten infected with HBV?

HBV is spread by blood and sex. You may have gotten infected if:

- You had sex with an infected person.
- You shot street drugs.
- Your mother had hepatitis B when you were born.
- You lived with an infected person.
- You are a health care worker and were exposed to infected blood.



Is there medical treatment for you?

- Medicines are available that might reduce your chance of getting severe liver disease.
- Talk to your doctor to find out if you have liver damage and if these medicines would be helpful.
- The medicines are not approved for persons under 18 years of age.
- You should not take these medicines if you are pregnant.



What if you are pregnant?

HBV can be spread to your baby during birth, but this can be prevented.

- You should be sure that your baby gets a shot called H-B-I-G and the first dose of hepatitis B vaccine within 12 hours of birth.
- Your baby should get the second dose of hepatitis B vaccine at 1 to 2 months of age and the third dose at 6 months of age.
- Your baby should get a blood test at 9-15 months of age to be sure your baby is protected.

This brochure is made available by the CDC and can be downloaded or ordered at the website:

<http://www.cdc.gov/ncidod/diseases/hepatitis/resource/index.htm>. For additional viral hepatitis educational materials and resources see the Educational Materials Sources section of this document.

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV). The virus can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer and liver failure.

Occurrence

Hepatitis C virus is the most common chronic bloodborne viral infection. In the U.S., an estimated 4.1 million persons have ever been infected with HCV, of which 3.2 million are chronically infected. It is estimated that 25,000 new infections occur each year in the United States. Chronic infection occurs in 50-80% of those infected with HCV. Those chronically infected are at a much higher risk for developing cirrhosis and liver cancer. In 2005, 21 acute confirmed cases of HCV and 6,102 chronic confirmed cases of HCV (excluding NYC) were reported to the NYSDOH. As of December 31, 2005, approximately 31,230 confirmed chronic hepatitis C cases have been reported to the NYSDOH. Additional hepatitis data summaries can be found online at <http://www.health.state.ny.us/diseases/communicable/hepatitis>, in the Surveillance and Reporting section.

Clinical Manifestation

The signs and symptoms of acute HCV infection are indistinguishable from those of hepatitis A or B. Acute HCV onset may be subtle and may include ***malaise, anorexia, nausea, vomiting, right upper quadrant abdominal pain, fever, headache, myalgia, skin rashes, arthralgia and arthritis, followed by dark urine and jaundice.*** Many (90%) individuals newly infected with HCV do not have symptoms and are unaware of their infection. Progression to chronic liver disease occurs in 70% of those who are chronically infected with HCV; 5-20% develop cirrhosis over a period of 20 to 30 years; and 1-5% die from the consequences of long-term infection, including liver cancer and cirrhosis.

Transmission

HCV is primarily transmitted parenterally (e.g. blood to blood transmission). Sexual and mother-to-child transmission have been documented but appear far less efficient or frequent than the parenteral route.

Period of Communicability

Most persons that are ***acutely*** ill with HCV are generally infectious from one week prior to the onset of the first symptoms. Chronically infected persons are infectious as long as HCV antibody or HCV RNA is detectable in the blood.

Incubation Period

The incubation period ranges from 2 weeks to 6 months with an average of 6-9 weeks.

Laboratory Diagnosis

Disease status (acute vs. chronic) cannot be determined from laboratory testing alone. Anti-HCV screening tests (i.e. EIA, CIA, or MEIA) may be: 1) false positive in low-risk populations (i.e. blood donors) and, 2) false negative in patients with immune suppressive conditions. Therefore, all screening test results must be verified by a more specific assay (RIBA or Nucleic Acid Test (NAT)), if the signal-to-cut-off (s/co) ratio of the screening test is not predictive of a true positive.

Risk Groups

- Injection drug users
- Recipients of clotting factors produced prior to 1987
- Recipients of blood transfusions prior to 1992
- Recipients of organ transplants prior to 1992
- Hemodialysis patients
- Infants born to HCV-infected mothers
- Healthcare and public safety workers
- People who have multiple sex partners
- People who have ever had a tattoo or body piercing

Prevention Messages

- There is no vaccine to prevent hepatitis C.
- Do not shoot drugs. If you shoot drugs, stop and get into a drug treatment program. If you can't stop, never share needles, syringes, water, or "works", and get vaccinated against hepatitis A and B.
- Do not share personal care items that might have blood on them (such as razors or toothbrushes).
- Consider the risks if you are thinking about getting a tattoo or body piercing. Infection is a risk if the artist or piercer does not follow good infection control practices.
- If you are a health care or public safety worker, always follow routine barrier precautions and safely handle needles and other sharps.

Post Exposure Prophylaxis (PEP)

- Currently, there is no post exposure prophylaxis available for HCV.

Counseling Messages for Infected Persons

- Do not donate blood, tissue, or organs.
- Avoid alcohol, drugs and medications that may be toxic to the liver.
- Remain under a physician's care for regular check-ups.
- Consider vaccination for hepatitis A and B.
- HCV can be spread by sex; however, this appears to be rare. Further studies are needed to show the risk of sexual transmission. If you are having sex with more than one steady partner, use latex condoms correctly every time, to prevent the spread of sexually transmitted diseases. You should also get vaccinated against hepatitis B.

Additional counseling messages and printable brochures are available on the CDC website at www.cdc.gov/hepatitis.

Treatment

- Currently, there is no specific treatment recommended for **acute** HCV infection.

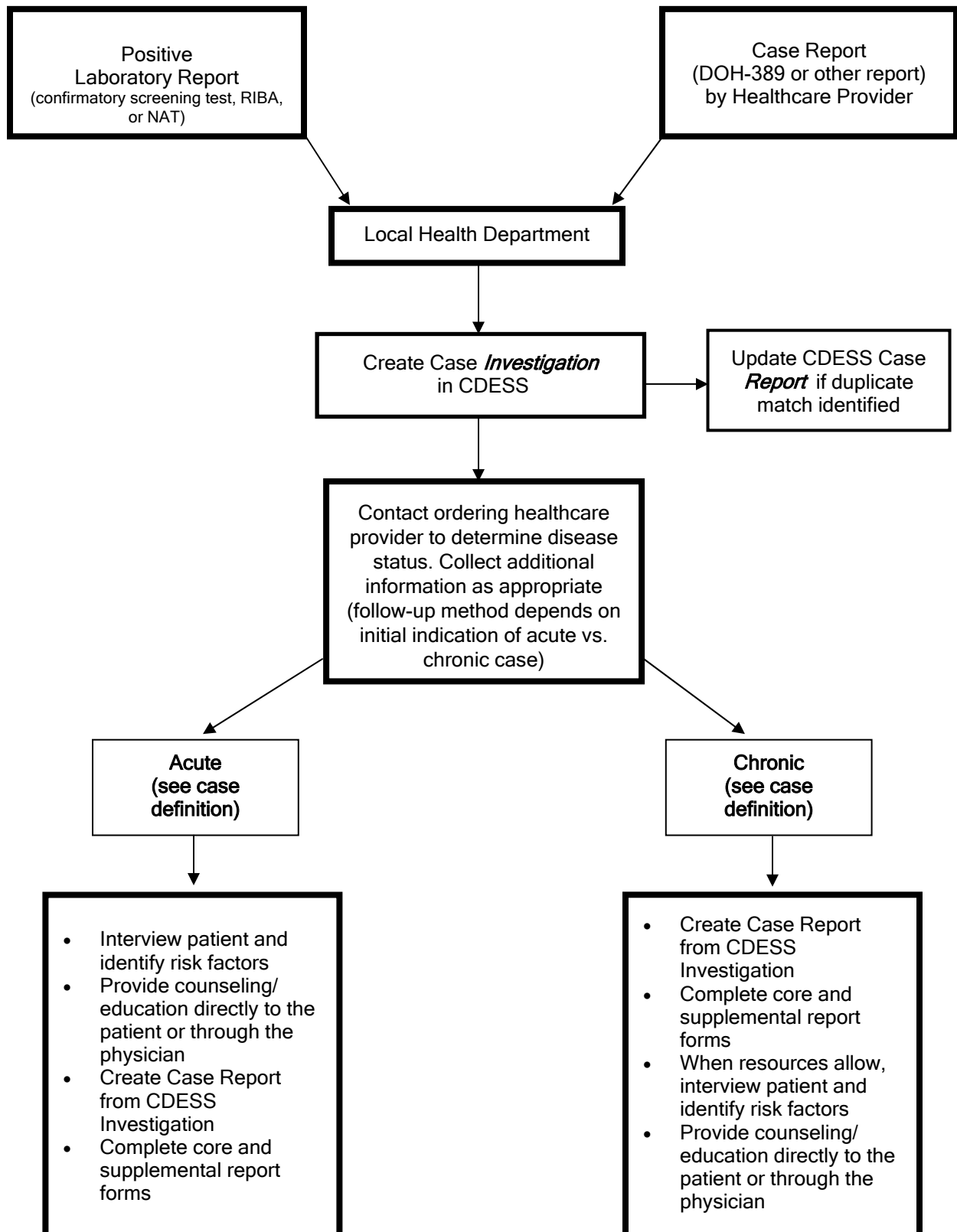
For those chronically infected:

- The primary goal of HCV therapy is to achieve a sustained viral response, defined as an undetectable HCV RNA 6 months after stopping antiviral therapy.
- Interferon and ribavirin are two drugs licensed for the treatment of persons with chronic hepatitis C.

- Interferon can be taken alone or in combination with ribavirin. Combination therapy, using pegylated interferon and ribavirin, is currently the treatment of choice.
- The efficacy of combination therapy varies depending on multiple factors, especially viral genotype; however, approximately 50% of patients achieve a sustained viral response.
- The decision to initiate antiviral therapy should be made in conjunction with a specialist on an individual basis.

Standard References

1. Heymann, D, Editor. Control of Communicable Diseases Manual 2004, 18th edition. American Public Health Association. Wash., D.C.
2. American Academy of Pediatrics. In: Pickering LK ed. 2003 Red Book Report of the Committee on Infectious Diseases. American Academy of Pediatrics, 26th edition. Elk Grove Village, IL.
3. Centers for Disease Control and Prevention Guidelines for Viral Hepatitis Surveillance and Case Management. Atlanta, GA 2005.
4. Centers for Disease Control and Prevention. Recommendations for the Prevention and Control of Hepatitis C Virus (HCV) Infection and HCV Related Disease. MMWR 1998; 47: 4-9.
5. New York State Department of Health. Clinical Guidelines for the Medical Management of hepatitis C. Available at www.health.state.ny.us/diseases/communicable/hepatitis/docs/hepc_guidelines.pdf. Accessed June 29, 2006.



I. Purpose of Surveillance and Reporting

The identification of persons infected with hepatitis C virus is an important public health activity. Surveillance systems can aid in the reduction of secondary transmission of disease, and in the investigation of disease outbreaks. In addition, surveillance and reporting assist in the following public health activities:

- Ensure that HCV-infected persons are educated on the need for medical evaluation and how to reduce disease progression, and to provide referrals to medical or support services.
- Determine the prevalence of HCV in specific populations and geographic locations to ascertain the need for HCV prevention and services.
- Identify HCV-infected persons to aid in the investigation of possible nosocomial or iatrogenic transmission of HCV.
- Build a chronic disease registry to support public health programs, case investigations and prevention programs.

II. NYSDOH Surveillance and Reporting Requirements**1. What to investigate**

- Investigation should be initiated within 5 calendar days of receipt of the following reports (for persons not previously reported):
 - Positive laboratory report for:
 - Anti-HCV screening test positive, confirmatory (s/co ratio predictive of a true positive)
 - Anti-HCV by RIBA
 - HCV RNA by NAT (i.e. PCR, TMA, bDNA)
 - Genotype results (report in separate field)
 - Anti-HCV screening test positive, non-confirmatory, where resources allow
 - DOH 389 report of a hepatitis C case
- Create Case Investigation on CDESS

2. Case Ascertainment

- All positive laboratory reports and DOH 389 HCV reports should be investigated, first, by contacting the patient's healthcare provider to determine the disease status (acute or chronic).
- Suggested method of physician contact:
 - ALT values elevated > 400 IU/L: Contact the physician by phone as soon as possible.
 - All other positive laboratory reports or DOH 389: NYSDOH Dear Doctor Letter (sample letter included in this document). The Dear Doctor Letter Form elicits the collection of all necessary information needed to report the case.
 - Where resources allow, a phone call to ordering physician's office for case ascertainment of positive HCV reports to determine acute or chronic disease status may assist in timely identification of acute HCV cases.

- Verify that the case meets either the acute or chronic case definition and determine case status.
 - The case status for **acute** HCV should be classified as confirmed or probable only.
 - The case status for **chronic** HCV should be classified as confirmed, probable, suspect, or unknown.
- **Priority** for case ascertainment should be given to the following:
 - cases that appear to be acute (e.g., ALT > 400 IU/L)
 - blood donors (if primary care provider is known)
 - those tested in the public sector (e.g., LHD STD Clinics)
 - those under the age of 30

3. Acute Case Investigation

- *Additional (Continued) Provider Follow-up:*
 - Once the case has been confirmed as acute, obtain additional information from the provider, including:
 - Risk factor(s) for infection during the two weeks to six months prior to onset of symptoms
 - Determine if patient/close contacts have been given education and counseling information
 - The NYSDOH Acute HCV supplemental reporting form is recommended for provider/patient interviews (the most up-to-date version can be found on the HIN at <https://commerce.health.state.ny.us/hin/ctrldocs/confcase/forms/cdessforms.html>).
- *Patient Follow-up:*
 - A patient phone interview is necessary to verify information obtained from the provider and to obtain any additional information that the provider did not have. The information is necessary to complete the Acute HCV supplemental reporting form. It is important that the following information is ascertained:
 - Risk factor(s) for infection during the two weeks to six months prior to onset of symptoms
 - Provide education and counseling as needed. Persons with acute hepatitis C should be advised to seek medical evaluation for the development of chronic infection (the detection of HCV RNA >6 months after illness onset).
 - When conducting follow-up with patients **under the age of 18**, discuss with parent prior to interview.
 - Notify your Regional Epidemiologist if any of the following risk factors during the incubation period are identified:
 - Receipt of blood or blood products
 - Hemodialysis
 - Hospitalization, surgery or other medical or dental procedures
 - Other invasive procedures
 - For acute cases **aged 70 and over**, in an attempt to determine the risk of becoming infected with hepatitis C through healthcare-related exposures, the CDC is requesting the following information be collected during the patient/provider interview:
 1. During the 2 weeks to 6 months before illness onset, was the patient hospitalized, including day surgery or procedures (i.e., colonoscopy, cataract surgery, etc)?

2. During the 2 weeks to 6 months before illness onset, did the patient receive IM (intramuscular) injections? IV (intravenous) infusions?
3. During the 2 weeks to 6 months before illness onset, did the patient use a finger stick device at home or have phlebotomy or finger stick blood draw in the outpatient setting?
4. During the 2 weeks to 6 months before illness onset, was the patient in a nursing home? If YES, did the patient have multiple finger sticks in the nursing home?

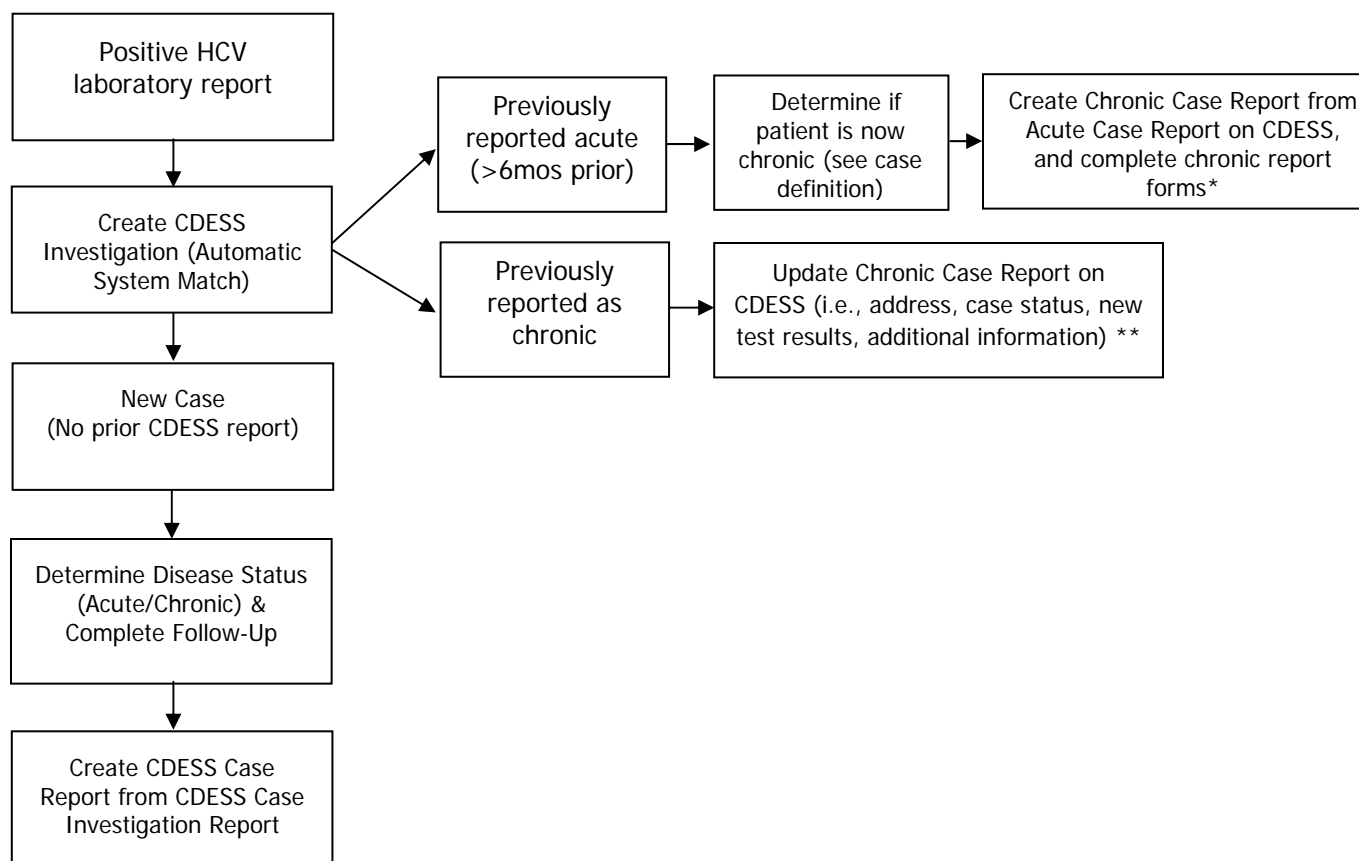
4. Chronic Case Investigation

- *Additional (Continued) Provider Follow-up:*
 - Once the case has been confirmed as chronic, obtain additional information, as needed to complete the Chronic HCV supplemental reporting form.
- *Patient Follow-up:*
 - Where resources allow, interview newly identified chronic patients to complete the Chronic HCV supplemental reporting form.
 - Where resources allow, provide education and counseling information, as needed.
 - Patient education and counseling may be done through the patient's physician or through direct contact with the patient by phone or by mail.
 - Chronic HCV Case Reports with no evidence of education and counseling provided by either the provider or the LHD will prompt an educational packet to be mailed to the patient by the NYSDOH (see the NYSDOH Patient Education Packet Section of this document).

5. Case Reporting

- LHD Communicable Disease staff should determine the disease (acute or chronic) and case (confirmed, probable, suspect, unknown) status prior to creating a case report on CDESS (see case definitions and case status definitions provided in this document).
- **Acute Case Reporting**
 - Acute HCV Case Investigations on CDESS should be converted to Case Reports on CDESS for all **confirmed and probable** acute HCV cases. Cases should not be created until the investigation is complete.
 - Complete both the Confidential Case Report Form and supplemental acute HCV reporting forms.
- **Chronic Case Reporting**
 - Chronic HCV Case Investigations on CDESS should be converted to Case Reports on CDESS for **all chronic cases, regardless of the case status**, once the investigation is complete.
 - Complete the Confidential Case Report Form on CDESS.
 - Complete, at a minimum, the following information on the Chronic Hepatitis C Supplemental Form:
 - Ordering physician name and phone number
 - Test(s) date
 - Test(s) type
 - Test(s) results
 - Complete any known risk factor information on the supplemental form.

- ***Undetermined Disease Status with positive anti-HCV screening test***
 - According to the CDC Guidelines for Viral Hepatitis Surveillance and Case Management (June 2002), a database should be maintained for persons testing positive for anti-HCV for which disease status cannot be confirmed (i.e., acute vs. chronic), clinical picture is unknown, and physician did not respond to follow-up attempts. The NYSDOH is using the Hepatitis Tracking System within CDESS to serve as the statewide database, in accordance with the CDC Guidelines for Viral Hepatitis Surveillance and Case Management. These cases should be reported as chronic hepatitis C with “unknown” case status selection on the confidential case report screen.



Upon receipt of a positive hepatitis C laboratory report (i.e., anti-HCV screening test, anti-HCV RIBA, or HCV RNA NAT) via ECLRS, **create a CDESS investigation** by going to CDESS Main Menu/Transfer ECLRS Records/Summary of ECLRS Records Available for Transfer to CDESS/Create an investigation.

Upon receipt of a paper laboratory or case report, **manually** create an investigation on CDESS by using the Initiate a new CD/STD/TB case/investigation from the Main Menu. Hepatitis C investigations should always be created with the disease code “**Generic**” and then changed to Chronic or Acute at the completion of the investigation, when creating the case report.

NOTE: If **manually** entering the investigation (not from the ECLRS to CDESS Transfer Summary), the Validation Search screen will open first. Enter the patient’s name, DOB and generic disease.

* If the acute case was reported by another LHD and case is now chronic and resides in your jurisdiction, you will need to manually enter a chronic case for this patient as acute records cannot be transferred from one LHD to another.

** If the chronic case was reported by another LHD and case now resides in your jurisdiction, you will need to request that the case be transferred to your LHD by the owning county.

Confirmed CSTE/CDC Case Definition (Effective 1/1/2007)**Clinical Criteria:**

An acute illness with:

- a discrete onset of any sign or symptom consistent with acute viral hepatitis, and
- a) jaundice or b) serum alanine aminotransferase levels (ALT) >400 IU/L

AND

Laboratory Criteria:

One or more of the following:

- Anti-HCV screening-test-positive (EIA, CIA, MEIA) verified by an additional more specific assay (e.g. RIBA for anti-HCV or nucleic acid testing (NAT) for HCV RNA, or
 - Anti-HCV screening-test-positive (EIA, CIA, MEIA) with a signal to cut-off (s/co) ratio predictive of a true positive as determined for the particular assay as determined for the particular assay by CDC (http://www.cdc.gov/ncidod/diseases/hepatitis/c/sc_ratios.htm), or
 - HCV RIBA positive, or
 - NAT for HCV RNA positive
- AND**
- IgM anti-HAV negative, and
 - IgM anti-HBc negative

Probable (NYSDOH, Effective 1/1/05)**Clinical Criteria:**

An acute illness with:

- discrete onset of symptom(s) consistent with acute viral hepatitis, and
- jaundice or elevated serum aminotransferase levels (any level of elevation)

AND

Laboratory Criteria:

- Anti-HCV screening-test-positive (EIA, CIA, MEIA) not verified by an additional more specific assay (e.g. RIBA for anti-HCV or NAT for HCV RNA) or s/co ratio unknown, and
- IgM anti-HAV negative (if done), and
- IgM anti-HBc negative or HBsAg negative

CSTE/CDC Case Definition (Effective 2005)**Clinical Criteria:**

- Most hepatitis C virus (HCV) infected persons are asymptomatic. However, many have chronic liver disease, which can range from mild to severe including cirrhosis and liver cancer.

Laboratory Criteria:

- Anti-HCV screening-test-positive (EIA, CIA, MEIA) verified by an additional more specific assay (e.g. RIBA for anti-HCV or nucleic acid testing (NAT) for HCV RNA, or
- Anti-HCV screening-test-positive (EIA, CIA, MEIA) with a signal to cut-off (s/co) ratio predictive of a true positive as determined for the particular assay (e.g., ≥ 3.8 for the enzyme immunoassays) as determined and posted by CDC (http://www.cdc.gov/ncidod/diseases/hepatitis/c/sc_ratios.htm), or
- HCV RIBA positive, or
- NAT for HCV RNA positive, or
- HCV genotype

Case Status Classification:

- **Confirmed:** A case that is laboratory confirmed and that does not meet the case definition for acute hepatitis C.
- **Probable:** A case that is anti-HCV screening-test-positive (EIA, CIA, MEIA) and has alanine aminotransferase (ALT or SGPT) values above the upper limit of normal, but the anti-HCV screening test result has not been verified by an additional more specific assay or the s/co ratio is unknown.

(NYSDOH, Effective 2003)

- **Suspect:** A case that has two anti-HCV screening-test-positive (EIA, CIA, MEIA) results at least six months apart, with neither test result verified by an additional more specific assay or the s/co ratio is unknown.
- **Unknown:** A case that is anti-HCV screening-test-positive (EIA, CIA, MEIA), but the anti-HCV screening assay result has not been verified by an additional more specific assay or the s/co ratio is unknown.

CDC has recommended that a person be considered to have serologic evidence of HCV infection only after an anti-HCV screening-test--positive result has been verified by a more specific serologic test (e.g., RIBA) or a nucleic acid test (NAT). This more specific, supplemental testing is necessary, particularly in populations with a lower prevalence of disease, to identify and exclude false positive screening test results. However, currently, the majority of laboratories report positive anti-HCV results based on a positive screening assay alone.

The recommended anti-HCV testing algorithm has been expanded to include an option that uses the signal-to-cut--off (s/co) ratios of screening-test--positive results. This can serve as an alternative to a supplemental test in some circumstances, minimizing the number of specimens that require supplemental testing and providing a result that has a high probability of reflecting the person's true antibody status.

Signal-to-cut--off ratios are calculated by dividing the optical density (OD) value of the sample being tested by the OD value of the assay cut-off for that run. Analysis of enzyme immunoassay and chemiluminescence assay data indicates that s/co ratios can be used to predict supplemental test-positive results. A specific s/co ratio can be identified for each test that would predict a true antibody-positive result (as defined by the results of supplemental testing) $\geq 95\%$ of the time, regardless of the anti-HCV prevalence or characteristics of the population being tested.

Implementation of these recommendations will provide more reliable results for physicians and their patients, so that further counseling and clinical evaluation are limited to those confirmed to have been infected with HCV. This is especially critical for persons being tested for HCV infection for the first time, for persons being tested in non-clinical settings, and for those being tested to determine the need for medical referral. Implementation of these recommendations also will improve public health surveillance systems.

The table below lists the s/co ratios predictive of a true positive, as determined by the CDC, for each commercially available anti-HCV screening test kit listed in the table.

Screening test kit	Signal-to-cut-off ratio predictive of a true positive $\geq 95\%$ of the time
Ortho HCV Version 3.0 ELISA Test System	3.8
Abbott HCV EIA 2.0	3.8
Ortho Vitros Anti-HCV Assay	8.0
Abbott AxSYM Antibody to HCV	10.0
Bayer Advia Centaur HCV Assay	Not Yet Available

Source:

Centers for Disease Control and Prevention. National Center for HIV, STD, and TB Prevention. Retrieved June 16, 2006, at http://www.cdc.gov/ncidod/diseases/hepatitis/c/sc_ratios.htm. Check this website regularly for updated s/co ratios for commercially available assays.

For more information on tests to detect antibody to hepatitis C virus, see the CDC's Guidelines for Laboratory Testing and Result Reporting of Antibody to Hepatitis C Virus. MMWR, 2/7/03 Vol. 52(rr-3) at <http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5203a1.htm>.

Hepatitis C Virus (HCV)

Tests for Hepatitis C Virus Infection

Test	Abbreviation(s)	Purpose	Comments
Hepatitis C virus antibody screening test by EIA (enzyme immunoassay), CIA (enhanced chemiluminescence immunoassay), or MEIA (Microparticle Enzyme Immunoassay)	anti-HCV, HCV Ab	Indicates infection but does not differentiate between acute, chronic, or resolved infection. Requires confirmation by RIBA or NAT unless the s/co ratio is predictive of positive.	Sensitivity >97% EIA alone has a high false positive rate among low prevalence populations. Detects antibody to HCV in 80% of patients within 15 weeks of exposure. <u>Late seroconversion can occur (an early negative may be falsely negative).</u>
Hepatitis C virus antibody RIBA (recombinant immunoblot assay)	anti-HCV RIBA, HCV Ab RIBA	Indicates infection but does not differentiate between acute, chronic, or resolved infection. Is considered a confirmatory antibody test.	Sensitivity >97% Detects antibody to HCV in 80% of patients within 15 weeks of exposure. <u>Late seroconversion can occur (an early negative may be falsely negative).</u>
Nucleic acid test for hepatitis C virus ribonucleic acid	HCV RNA RT-PCR, QL HCV RNA, QT HCV RNA, bDNA, TMA	Detects presence of virus as early as 1-2 weeks after exposure. Detection may be intermittent. A single negative test is not conclusive. Determines concentration of HCV RNA (viral load). Used to confirm viral infection and to monitor patients on therapy.	False-positive and false-negative results may be caused by improper handling, storage, or contamination of samples. Do not use to exclude the diagnosis of HCV.
Genotype	None	Groups HCV based on genetic differences into 6 genotypes and > 50 subtypes. Used to determine length of treatment, as recommended therapy may vary by genotype.	Genotype 1 (subtype 1a and 1b) most common in U.S. and associated with lower response to current therapy.

Hepatitis C Virus (HCV)**Interpretation of Test Results**

Interpretation	Anti-HCV by EIA, CIA, MEIA	Anti-HCV by RIBA	NAT for HCV RNA*
Active infection	+	+	+
Resolved infection or intermittent viremia	+	+	—
False positive screening test (antibody)	+	-	-
False-negative anti-HCV (early infection or immunocompromised host)	-	-	+

**Because some HCV-infected patients may be only intermittently HCV-RNA positive, a single negative test result cannot be used to rule out chronic infection and repeat testing at 3-6 month intervals is indicated.*

I. New York State Department of Health Follow-Up.

- A. Positive serology for anti-HCV (confirmatory screening-test or RIBA), or NAT for HCV-RNA reported via the ECLRS system or other laboratory reporting system are periodically matched against CDESS to verify that the case has been reported. If the case is not reported via CDESS within 60 days, the LHD Communicable Disease Coordinator will be sent a follow-up letter. An example of the letter is provided below.

TO: Communicable Disease Coordinator
 FROM: Elena M. Rizzo*
 Hepatitis Surveillance Coordinator
 RE: Required Reporting of Hepatitis Cases
 DATE:

Enclosed is one or more positive hepatitis C laboratory reports for which our records indicate that no corresponding Confidential Case Reports have been entered via CDESS for over 60 days from the date of the laboratory reports. If all case requirements for reporting either an acute or a chronic hepatitis cases are met for these patients, the cases should be reported via CDESS.

If your records indicate that these cases have already been reported via CDESS, please indicate the appropriate information below.

If your records indicate that the patients do not meet the criteria for either acute or a chronic hepatitis, or that the cases are not reportable by your health department, please provide the reason that the cases are not reportable below. For example, (1) the case does not meet all reporting requirements; (2) the patient resides in another county and should be reported by that county health department; (3) the case falls under the jurisdiction of the New York City Health Department.

Please FAX this form to the Statistical Unit at (518) 474-4880.

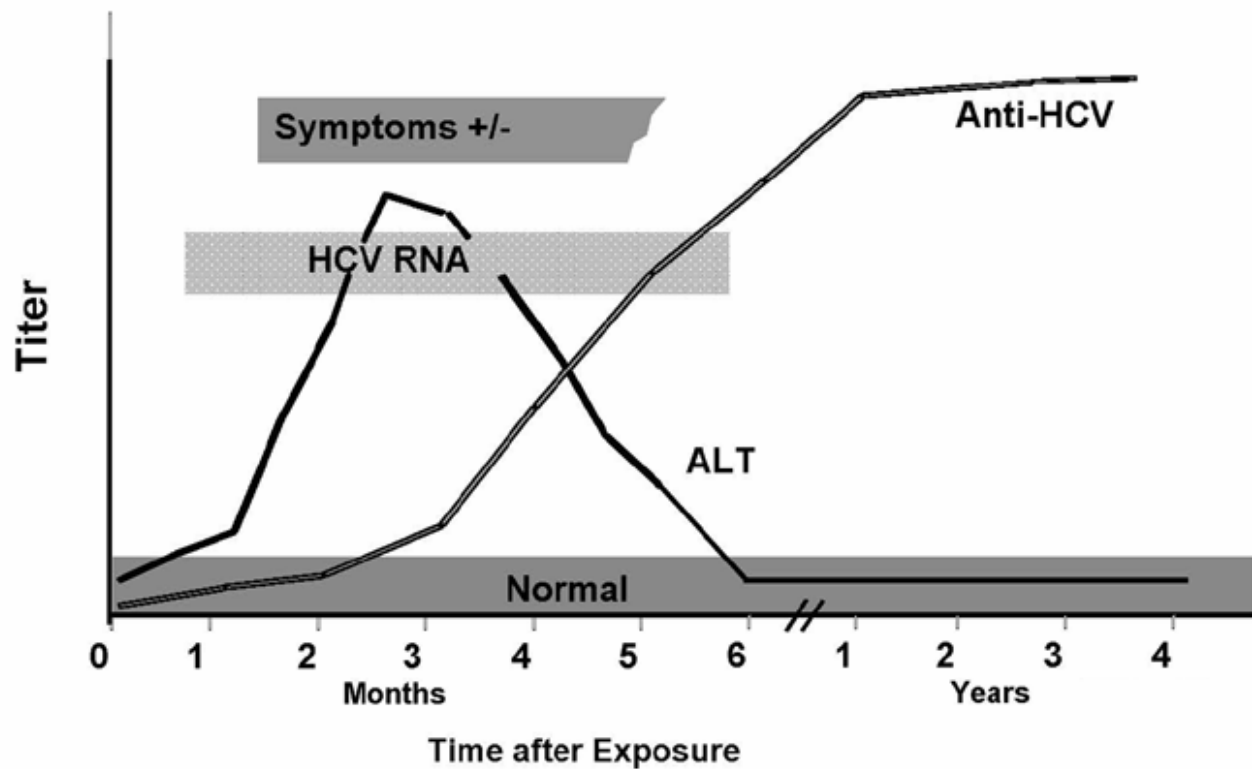
Thank you for your assistance.

NAME	DISEASE	CASE REPORT SERIAL NUMBER_____
		REASON NOT REPORTABLE_____
NAME	DISEASE	CASE REPORT SERIAL NUMBER_____
		REASON NOT REPORTABLE_____
NAME	DISEASE	CASE REPORT SERIAL NUMBER_____
		REASON NOT REPORTABLE_____
NAME	DISEASE	CASE REPORT SERIAL NUMBER_____
		REASON NOT REPORTABLE_____
NAME	DISEASE	CASE REPORT SERIAL NUMBER_____
		REASON NOT REPORTABLE_____

***Please direct any questions to the Statistical Unit, Division of Epidemiology at (518) 474-0548.**

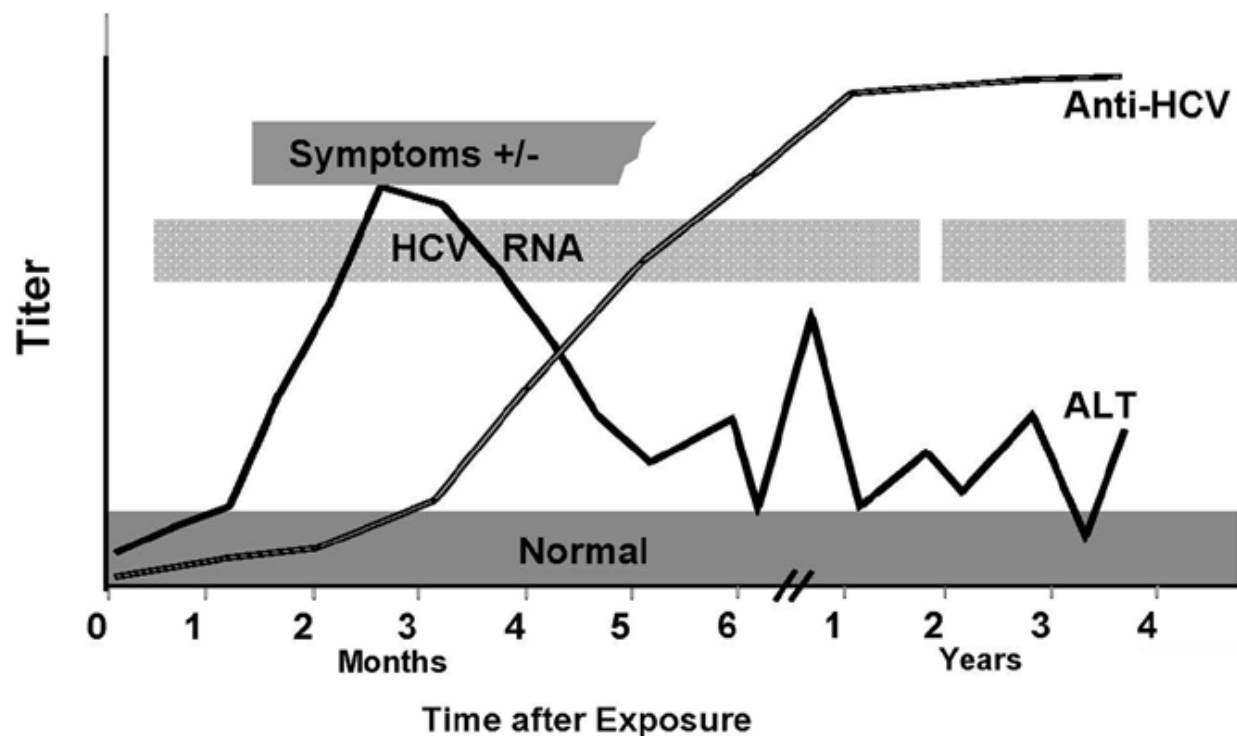
- B. Hepatitis C case reports are monitored weekly to ensure that new cases entered on CDESS meet the case status definition as reported. The Statistical Unit or Regional Surveillance Officer will contact LHDs for further information or to inform of case status changes as needed.
- C. NYSDOH Staff may periodically transfer case reports to another LHD if there is evidence that the patient has moved to another LHD jurisdiction. Duplicate records may be “revoked.” Explanation of why the case has been transferred or revoked will appear in the comments field of the CDESS report.

Pattern of Acute HCV Infection with Recovery



Source: Centers for Disease Control and Prevention

Serologic Pattern of Acute HCV Infection With Progression to Chronic Infection



Source: Centers for Disease Control and Prevention

The Hepatitis Unit has evaluated tools for LHDs to use in the follow-up of hepatitis B and C reports. From July 1, 2002 to December 31, 2002, eleven LHDs participated in a pilot project to evaluate the effectiveness of using a "Dear Doctor Letter" to follow-up on hepatitis C laboratory and DOH 389 reports. Results show an overall six-month response rate of 73 percent, with no direct correlation of response rate to the LHD's population size. Based on the evaluation of the project, and revised CDC reporting forms for viral hepatitis, the Hepatitis Unit has revised the Hepatitis C Dear Doctor Letter and created a dear doctor letter for use with hepatitis C reports. While each LHD will have different response rates, the pilot project evaluation shows that the use of a dear doctor letter is an effective initial method of follow-up.

Suggested protocol for the use of a dear doctor letter is as follows:

1. Request an electronic version of the dear doctor letter and form from the NYSDOH Hepatitis Unit (by phone at 518-473-4439 or by email at hepatabc@health.state.ny.us). The Dear Doctor Letter is also available on the HIN at <https://commerce.health.state.ny.us/hin/> in the Program Area, Communicable Disease/Hepatitis.
2. Revise the letter and form with your LHD contact information where appropriate and place the letter on LHD letterhead.
3. Consider specifying the test type on the cover letter to the physician and completing all available demographic information on the form prior to mailing to the physician.
4. Establish a system for tracking the date a letter is mailed to a physician and the physician contact information.
5. If the letter is not returned within 21-days, follow-up with the physician through a telephone call. Physicians are often too busy to answer calls, so it might be worthwhile to attempt to speak to the physician's assistant or nurse.
6. The Dear Doctor Form has been developed in an effort to standardize the data collected for hepatitis C cases statewide. Cover letters may be edited, as the LHD feels appropriate; however, the NYSDOH recommends that the reporting form remain consistent. The patient education questions on the form may be altered based on LHD protocol (i.e., LHD may choose to provide the counseling messages to physician rather than direct contact with the patient).

[County Letterhead]

Dear Doctor:

The _____ Health Department has received a positive **hepatitis C virus (HCV)** laboratory result for your patient, _____. **New York State Public Health Law mandates that laboratories and physicians report hepatitis A, B, and C cases to the county health department where the patient resides.** The Centers for Disease Control and Prevention (CDC) recommends that all hepatitis C antibody tests (e.g., EIA, CIA, MEIA) be verified by a supplemental confirmatory test (e.g., RIBA or HCV-PCR), because of the high rate of false positivity of the EIA antibody test.

Please complete the attached two-sided form as completely as possible. **Questions marked with an asterisk (*) are required for the County Health Department to report the case.** The risk factor section on side two should be completed for chronic cases only. Our staff will conduct acute case investigation in further detail.

Please return the form within 21-days by mail or by fax to the _____ County Health Department at the above address or fax to _____. If you have any questions regarding hepatitis C, please call us at _____.

Thank you for your assistance.

Sincerely,

[NAME]

[TITLE]

Please note the following case definitions:

Acute Hepatitis C CSTE/CDC Case Definition (Effective 1/1/2007)

Clinical Criteria:

An acute illness with:

- with a discrete onset of any sign or symptom consistent with acute viral hepatitis, and
- jaundice, or b) serum alanine aminotransferase levels (ALT) >400 IU/L

AND

Laboratory Criteria:

One or more of the following:

- Anti-HCV screening-test-positive (EIA, CIA, MEIA) verified by an additional more specific assay (e.g. RIBA for anti-HCV or nucleic acid testing (NAT) for HCV RNA, or
- Anti-HCV screening-test-positive (EIA, CIA, MEIA) with a signal to cut-off (s/co) ratio predictive of a true positive as determined for the particular assay as determined for the particular assay by CDC (http://www.cdc.gov/ncidod/diseases/hepatitis/c/sc_ratios.htm), or
- HCV RIBA positive, or
- NAT for HCV RNA positive, and
- IgM anti-HAV negative, and
- IgM anti-HBc negative

Chronic Hepatitis C CSTE/CDC Case Definition (Effective 2005)

Clinical Criteria:

- Most hepatitis C virus (HCV) infected persons are asymptomatic. However, many have chronic liver disease, which can range from mild to severe including cirrhosis and liver cancer.

Laboratory Criteria:

- Anti-HCV screening-test-positive (EIA, CIA, MEIA) verified by an additional more specific assay (e.g. RIBA for anti-HCV or NAT for HCV RNA, or
- Anti-HCV screening-test-positive (EIA, CIA, MEIA) with a s/co ratio predictive of a true positive as determined for the particular assay (e.g., ≥ 3.8 for the enzyme immunoassays) as determined and posted by CDC, or
- HCV RIBA positive, or
- NAT for HCV RNA positive, or
- Report of HCV genotype

Case Status Classification:

- **Confirmed:** A case that is laboratory confirmed and that does not meet the case definition for acute hepatitis C.

Hepatitis Unit, BCDC Revised 8/2/06

Hepatitis C Virus (HCV)**Sample Dear Doctor Form**

NOTE: Questions marked by an asterisk (*) are required for the County Health Department to report the case.
Please verify any completed information.

PATIENT INFORMATION

*Last Name: _____ *First Name: _____ MI: _____ Phone: (____) _____

*Address Street: _____ *City: _____ *Zip: _____

*DOB: ____/____/____ Sex: ☐ M ☐ F

Occupation/Setting: ☐ Food Service ☐ Day Care ☐ Health Care ☐ Student/School
☐ Inmate ☐ Unknown ☐ Other: _____

***Please verify the status of the case and complete the appropriate corresponding sections below (refer to case definitions):**

☐ Acute (Confirmed) ☐ Chronic (Confirmed) ☐ Chronic (Probable) ☐ Not a case (do not complete form)

Is the patient aware of their hepatitis C status? ☐ Yes ☐ No

Education: ☐ The patient has been provided education regarding hepatitis C.

Race:

☐ White
☐ Black/African American
☐ American Indian or Alaska native
☐ Asian

☐ Native Hawaiian/Pacific Islander
☐ Other, specify: _____
☐ Unknown

Ethnicity:

☐ Hispanic or Latino
☐ Not Hispanic or Latino
☐ Unknown

DIAGNOSTIC DATA

Reason for testing (check all that apply):

☐ Symptoms of acute hepatitis
☐ Evaluation of elevated liver enzymes
☐ Screening for asymptomatic patient with reported risk factors
☐ Blood/organ donor screening
☐ Screening of asymptomatic patient with no risk factors (e.g., patient requested)
☐ Follow-up testing for previous marker for viral hepatitis
☐ Prenatal screening
☐ Other, specify: _____

***DIAGNOSTIC TESTS**

	*TEST DATE	Pos	Neg	Unk
EIA anti-HCV (s/co ratio: _____)	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RIBA anti-HCV	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HCV NAT (PCR, TMA, bDNA)	____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT [SGPT] _____	____/____/____			
AST [SGOT] _____	____/____/____			

Please list any other viral hepatitis test results or attach a copy of the laboratory report(s) to this form.

Test Type:	Date:	Result:
_____	____/____/____	_____
_____	____/____/____	_____
_____	____/____/____	_____

CLINICAL DATA

Diagnosis Date: ____/____/____		Yes	No	Unk
Was the patient symptomatic?	Onset Date: ____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient jaundiced?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient hospitalized for hepatitis?	Date of hosp: ____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the patient pregnant?	Due Date: ____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient die from hepatitis?	Date of death: ____/____/____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RISK FACTORS -- Please complete this section for CHRONIC case ONLY:

The following questions are provided as a guide for the investigation of lifetime risk factors for HCV infection. Routine collection of risk factor information for persons who test HCV positive is not required. However, collection of risk factor information may provide useful information for the development and evaluation of programs to identify and counsel HCV-infected persons.

	Yes	No	Unk
Did the patient receive a blood transfusion prior to 1992?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive an organ transplant prior to 1992?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient receive clotting factor concentrates produced prior to 1987?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever on long-term hemodialysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever injected drugs not prescribed by a doctor even if only once or a few times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient had multiple sexual partners?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How many sexual partners has the patient had (approximate lifetime)? _____			
Was the patient ever treated for a sexually transmitted disease?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever a contact of a person who had hepatitis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, type of contact:			
Sexual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Household (non-sexual)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever incarcerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient ever have a needlestick exposure (occupational)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was the patient ever employed in a medical or dental field involving direct contact with human blood?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever had a tattoo?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the patient ever has a body piercing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, specify: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your cooperation.

Name of person completing form: _____

Date: ____/____/____

Please return this form and any additional laboratory results by mail or by fax to:

X County Health Department

CD Staff Name

Address

Phone

FAX

In January 2005, the Centers for Disease Control and Prevention (CDC) revised its *Guidelines for Viral Hepatitis Surveillance and Case Management*, which describe the essential elements and best practices for conducting surveillance for viral hepatitis and case management (i.e., providing education and counseling and medical referral). The guidelines state that chronic patients should be advised regarding how to reduce their risk of transmitting HCV to others and how to reduce further liver injury, and should be referred for medical evaluation and management.

To address the needs of patient education and counseling among NYS residents, the NYSDOH Hepatitis Unit developed a patient packet which includes a patient cover letter (with no patient names on the letter) explaining that the NYSDOH were notified of their chronic disease, as is required by law, by either the laboratory or their physician.

In 2006, the NYSDOH Hepatitis Unit began doing a monthly mailing of the HCV education packet to patients reported to the NYSDOH chronic HCV registry, who meet the following criteria:

- Patients reported to the registry with **confirmed** chronic hepatitis C virus infection at least 60 days or more days prior to the mailing
- Patients reported to the registry for whom the case report indicates that education and counseling **have not been provided** either by the physician or the LHD
- Those aged 18 years and over, and
- Those that are not inmates.

For your reference, the chronic HCV Patient Education Packet can be found on pages 72-80 of this document.



STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

Antonia C. Novello, M.D., M.P.H., Dr.P.H.
Commissioner

Dennis P. Whalen
Executive Deputy Commissioner

Dear Sir or Madam,

The purpose of this letter is to provide you with information that may benefit your health. To improve the health of New Yorkers, the New York State Department of Health has established the Viral Hepatitis Disease Registry. The role of the registry is to help better understand the extent and causes of viral hepatitis infection among New York State residents and convey useful information regarding the condition to affected persons.

As required by longstanding New York State regulations, laboratories and physicians are asked to report persons who test positive for hepatitis C virus to the Viral Hepatitis Disease Registry. Be assured that the confidentiality of all information provided to the Viral Hepatitis Disease Registry is strictly protected by Public Health Law and that the registry data can only be used for approved research and the improvement of health care. No names or other personal identifiers are publicly disclosed in these activities.

You may have already received information on hepatitis C virus from your physician; however, we have gathered some additional information that you might find helpful.

- Know your current infection status. If you have only been tested for antibody to the hepatitis C virus, your doctor may order additional laboratory testing to determine whether you have cleared the infection or are currently (chronically) infected.
- If you are chronically infected:
 - See your doctor regularly.
 - Take care of your liver by avoiding alcohol and medications that may be harmful to the liver (discuss all medications that you are taking with your doctor).
 - Vaccination against hepatitis A virus and hepatitis B virus are recommended for persons with chronic hepatitis C infection to prevent further liver damage. Discuss this with your doctor, or call your local health department to find out where you can get these vaccinations.
- Read the enclosed information to learn more about the virus, taking care of your liver, and preventing the spread of hepatitis C virus to others.

If you have any questions about your health, please contact your doctor. You may also contact your local health department (see the enclosed directory). For general information about hepatitis C, you may call 1-888-4-HEP-CDC or visit the New York State Department of Health website at <http://www.health.state.ny.us/diseases/communicable/hepatitis>. The New York State Department of Health Viral Hepatitis Disease Registry may be reached at 518-486-2938.

Sincerely,

Elena M. Rizzo, M.A.
Hepatitis Surveillance Coordinator
Bureau of Communicable Disease Control

Communicable Disease

New York State Department of Health

Hepatitis C

What is hepatitis C?

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have this disease. HCV is spread by contact with the blood of an infected person.

Who gets hepatitis C?

Persons at highest risk for HCV infection include:

- persons who ever injected illegal drugs, including those who injected once or a few times many years ago,
- people who had blood transfusions, blood products, or organ donations before June, 1992, when sensitive tests for HCV were introduced for blood screening, and
- persons who received clotting factors made before 1987.

Other persons at risk for hepatitis C include:

- long-term kidney dialysis patients,
- healthcare workers after exposures (e.g., needle stick or splashes to the eye) to the blood of an infected person while on the job,
- infants born to HCV infected mothers,
- people with high-risk sexual behavior, multiple partners, and sexually transmitted diseases,
- people who snort cocaine using shared equipment, and
- people who have shared toothbrushes, razors and other personal items with a family member that is HCV-infected.

How is the virus spread?

Like hepatitis B virus, hepatitis C virus is spread when blood or body fluids of an infected person enters the body of a person who is not infected, such as through sharing needles or “works” when shooting drugs or occupational needle stick injury. The risk of sexual transmission has not been thoroughly studied but appears to be low in long-term, monogamous relationships. There is no evidence that the hepatitis C virus can be transmitted by casual contact such as hugging or shaking hands, through foods, by sharing eating utensils or drinking glasses, or by coughing or sneezing. Hepatitis C is not spread by breastfeeding.

What are the symptoms and consequences of infection?

Approximately 20% of persons exposed to the virus develop symptoms which may include jaundice (yellowing of the skin and whites of the eyes), fatigue, dark colored urine, stomach pain, loss of appetite and nausea. After the initial infection, 15-25 percent will recover and 75-85 percent will become chronically infected (life-long infection). Approximately 70 percent of persons chronically infected will develop liver disease, sometimes decades after initial infection.

How soon do symptoms occur?

Symptoms may occur from two weeks to six months after exposure but usually within 6-9 weeks.

When and for how long is a person able to spread hepatitis C?

Persons with acute hepatitis C virus infection are generally contagious from one or more weeks before the onset of symptoms. The contagious period is indefinite in chronically infected persons. All persons who test positive should be considered to be potentially contagious.

What is the treatment for hepatitis C?

Drugs (anti-viral) are licensed for treatment of persons with chronic hepatitis C. Combination drug therapy, using pegylated interferon and ribavirin, can get rid of the virus in up to 5 out of 10 persons with genotype 1, the most common genotype in the U.S. and 8 out of 10 persons with genotype 2 or 3. It is important to know that the decision to treat hepatitis C is complex and is best made by a physician experienced in treating the disease.

Is donated blood tested for this virus?

Since the early 1990s, blood donation centers throughout the U. S. have routinely used a blood donor screening test for hepatitis C. Widespread use of this test has significantly reduced the number of post-transfusion hepatitis C infections .

How can the risk of chronic liver disease be reduced among persons infected with hepatitis C?

People who are infected with hepatitis C should not drink alcohol. They should talk with their doctor before taking any new medications, including over-the-counter and herbal medications. They should also talk with their doctor about getting the hepatitis A and hepatitis B vaccines.

How can the spread of hepatitis C be prevented?

People who have hepatitis C should remain aware that their blood and possibly other body fluids are potentially infectious.

- Do not shoot drugs; if you shoot drugs, stop and get into a treatment program; if you can't stop, never share needles, syringes, water, or "works", and get vaccinated against hepatitis A & B.
- Do not share personal care items that might have blood on them (razors, toothbrushes).
- If you are a health care or public safety worker, always follow routine barrier precautions and safely handle needles and other sharps; get vaccinated against hepatitis B.
- Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools have someone else's blood on them or if the artist or piercer does not follow good health practices.
- HCV can be spread by sex, but this is rare. If you are having sex with more than one steady sex partner, use latex condoms correctly and every time to prevent the spread of sexually transmitted diseases. You should also get vaccinated against hepatitis B.
- If you are infected with HCV, do not donate blood, organs, or tissue.

Is there a vaccine for hepatitis C?

At the present time, a hepatitis C vaccine is not available.

IMMUNIZATION AND COMMUNICABLE DISEASE PROGRAM CONTACT INFORMATION FOR LOCAL HEALTH DEPARTMENTS IN NEW YORK STATE

Local Health Department	Immunization	General Communicable Disease Information
Albany County Health Department 175 Green Street Albany, New York 12201-0678	518-447-4589	518-447-4640
Allegany County Health Department County Office Building, 7 Court Street Belmont, New York 14813	585-268-9250	585-268-9250
Broome County Health Department 225 Front Street Binghamton, New York 13905	607-778-2870	607-778-2804
Cattaraugus County Health Department 1 Leo Moss Drive Olean, New York 14760-1154	716-373-8050	716-373-8050
Cayuga County Department of Health and Human Services 160 Genesee Street Auburn, New York 13021	315-253-1456	315-253-1560
Chautauqua County Health Department Hall R. Clothier Building Mayville, New York 14757	716-753-4491	716-753-4314
Chemung County Health Department 103 Washington Street Elmira, New York 14902-0588	607-737-2028	607-737-2028
Chenango County Health Department County Office Building 5 Court Street Norwich, New York 13815	607-337-1660	607-337-1668
Clinton County Health Department 133 Margaret Street Plattsburgh, New York 12901-2926	518-565-4848	518-565-4848
Columbia County Health Department 71 North Third Street Hudson, New York 12534	518-828-3358 ext. 1257	518-828-3358 ext. 1257
Cortland County Health Department Cortland County Office Building 60 Central Avenue Cortland, New York 13045-2746	607-753-5028	607-753-5035
Delaware County Public Health Nursing Service 99 Main Street Delhi, New York 13753	607-746-3166	607-746-3166
Dutchess County Health Department 387 Main Street Poughkeepsie, New York 12601	845-486-3924	845-486-3498
Erie County Health Department 95 Franklin Street, Room 910 Buffalo, New York 14202	716-858-67698	716-858-6071
Essex County Public Health Department 132 Water Street Elizabethtown, New York 12932-0217	518-873-3509	518-873-3500

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Franklin County Public Health Services 355 West Main Street Malone, New York 12953	518-891-4471 ext. 3013	518-891-4471 x3004
Fulton County Public Health Department 2714 State Highway 29 Johnstown, New York 12095	518-736-5720	518-736-5720
Genesee County Public Health Department 3837 West Main Street Road Batavia, New York 14020	585-344-8506	585-344-2580
Greene County Public Health Nursing 159 Jefferson Heights, Ste A-201 Catskill, New York 12414	518-719-3603	518-719-3600
Hamilton County Public Health Nursing Service White Birch Lane Indian Lake, New York 12842	518-648-6497	518-648-6141
Herkimer County Public Health Nursing Service 301 North Washington Street Suite 2300 Herkimer, New York 13350-2910	315-867-1430	315-867-1176
Jefferson County Public Health Service 531 Meade Street Watertown, New York 13601	315-786-3720	315-786-3732
Lewis County Public Health Agency 7785 North State Street Lowville, New York 13367	315-376-5449	315-376-5449
Livingston County Department of Health 2 Livingston County Campus Mt. Morris, New York 14510	585-243-7299	585-243-7299
Madison County Department of Health Public Health Building, #5 Wampsville, New York 13163	315-366-2361	315-366-2361
Monroe County Health Department 111 Westfall Road Rochester, New York 14692	585-753-5150	585-753-5164
Montgomery County Public Health County Annex Building Fonda, New York 12068	518-853-3531	518-853-3531
Nassau County Department of Health 240 Old Country Road Mineola, New York 11501-4250	516-571-4923	516-571-3436
Niagara County Health Department 1001 11th Street, 3rd Floor, Nursing Niagara Falls, NY 14301	716-439-7456	716-439-7456
Oneida County Health Department 800 Park Avenue 9th Floor Utica, NY 13501	315-798-5747	315-798-5290
Onondaga County Department of Health 421 Montgomery Street Syracuse, New York 13202	315-435-3236	315-435-3236
Ontario County Public Health 3019 County Complex Drive Canandaigua, New York 14424-9514	585-396-4523	585-396-4343

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Orange County Health Department 124 Main Street Goshen, New York 10924	845-291-4281	845-291-2375
Orleans County Health Department 14012 Route 31 West Albion, New York 14411	585-589-3269	585-589-3278
Oswego County Health Department 70 Bunner Street Oswego, New York 13126	315-349-3582	315-349-8358
Otsego County Dept of Health County Office Building 197 Main Street Cooperstown, NY 13326	607-547-4230	607-547-4230
Putnam County Health Department 1 Geneva Road Brewster, New York 10509	845-278-6558	845-278-6558
Rensselaer County Department of Health 1600 Seventh Avenue Troy, New York 12180	518-270-2669	518-270-2655
Rockland County Health Department 50 Sanatorium Rd, Bldg D Pomona, NY 10970-9990	845-364-2662	845-364-2663
St. Lawrence County Public Health Department 80 State Highway 310, Suite2 Canton, New York 13617-1476	315-386-2325	315-386-2325
Saratoga County Public Health Nursing Service 31 Woodlawn Avenue Saratoga Springs, New York 12866	518-584-7460	518-584-7460
Schenectady County Public Health Services 107 Nott Terrace Schenectady, NY 12305	518-346-2187	518-386-2824
Schoharie County Department of Health 276 Main Street Schoharie, New York 12157	518-295-8474	518-295-8474
Schuyler County Home Health Agency 106 S. Perry Street, Suite 4 Watkins Glen, New York 14891	607-535-8140	607-535-8140
Seneca County Health Department 31 Thurber Drive Waterloo, New York 13165	315-539-1920	315-539-1920
Steuben County Public Health and Nursing Services 3 East Pulteney Square Bath, New York 14810	607-664-2438	607-664-2438
Suffolk County Department of Health Services 225 Rabro Drive East Hauppauge, New York 11788-4290	631-853-2979	631-853-3055
Sullivan County Public Health Nursing Service 50 Community Lane Liberty, New York 12754	845-292-0100, Ext. 2703	845-292-0100
Tioga County Health Department 1062 State Rt. 38, P.O. Box 120 Owego NY 13827-0120	607-687-8593	607-687-8593

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Tompkins County Health Department 401 Harris B. Dates Drive Ithaca, New York 14850-1386	607-274-6604	607-274-6604
Ulster County Health Department 300 Flatbush Avenue Kingston, New York 12401	845-340-3090	845-340-3090
Warren County Health Services 1340 State Route 9 Lake George, New York 12845	518-761-7690	518-761-6580
Washington County Public Health Services 415 Lower Main Street Hudson Falls, New York 12839-2650	518-746-2400	518-746-2400
Wayne County Public Health Service 1519 Nye Road, Suite 200 Lyons, New York 14489-9151	315-946-5749	315-946-5748
Westchester County Department of Health 145 Huguenot Street New Rochelle, New York 10801	914-813-5263	914-813-5159
Wyoming County Health Department 338 North Main Street Warsaw, New York 14569	585-786-8890	585-786-8890
Yates County Health Department 417 Liberty Street Suite 2120 Penn Yan, New York 14527	315-536-5160	315-536-5160

IF YOU USE OR INJECT STREET DRUGS:

- Stop and get into a drug treatment program.
- If you cannot stop, never reuse or share drugs, syringes, cookers, cotton, water, or snice cups.
- Get vaccinated against hepatitis A and hepatitis B.

IF YOU ARE HAVING SEX, BUT NOT WITH ONE STEADY PARTNER:

- You and your partners can get diseases spread by having sex (e.g., AIDS, hepatitis B, gonorrhea or chlamydia).
- Use latex condoms. The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use might reduce transmission.
- The surest way to prevent the spread of any disease by sex is not to have sex at all.
- Get vaccinated against hepatitis B.



HOW COULD I HAVE GOTTEN HEPATITIS C?

HCV is spread primarily by exposure to human blood. You may have gotten hepatitis C if:

- you ever injected street drugs, even if you experimented a few times many years ago.
- you were treated for clotting problems with a blood product made before 1987.
- you received a blood transfusion or a solid organ transplant (e.g., kidney, liver, heart) from an infected donor.
- you were ever on long-term kidney dialysis.
- you were ever a health care worker and had frequent contact with blood in the work place, especially accidental needlesticks.
- your mother had hepatitis C at the time she gave birth to you.
- you ever had sex with a person infected with HCV.
- you lived with someone who was infected with HCV and shared items such as razors or toothbrushes that might have had blood on them.

A person who has hepatitis C can still get other types of viral hepatitis, such as hepatitis A or hepatitis B.

Persons depicted in other materials are models and used for illustrative purposes only.

FOR INFORMATION ON VIRAL HEPATITIS:

access our website at:
<http://www.cdc.gov/hepatitis>

or call the
Hepatitis Information Line at
1.888.4HEPCDC
1.888.443.7232

or write
Centers for Disease Control and Prevention
Division of Viral Hepatitis, Mailstop G37
Atlanta, GA 30333

or
contact your state or local health department



DEPARTMENT OF HEALTH
& HUMAN SERVICES



Revised 8/03

LIVING WITH CHRONIC HEPATITIS C

ALMOST 4 MILLION AMERICANS
HAVE BEEN INFECTED WITH
HEPATITIS C VIRUS



This information will help you better understand what hepatitis C is, how you may have gotten it, and what you can do to prevent passing it to others.

WHAT IS HEPATITIS C?

Hepatitis C is a liver disease caused by the hepatitis C virus (HCV), which is found in the blood of persons who have this disease. The infection is spread by contact with the blood of an infected person.

HOW SERIOUS IS HEPATITIS C?

Hepatitis C is serious for some persons, but not for others. Most persons who get hepatitis C carry the virus for the rest of their lives. Most of these persons have some liver damage, but many do not feel sick from the disease. Some persons with liver damage due to hepatitis C may develop cirrhosis (scarring) of the liver and liver failure, which may take many years to develop. Others have no long-term effects.

WHAT CAN I DO NOW THAT MY HEPATITIS C TEST IS POSITIVE?

Contact your doctor. Additional tests may be needed to check your diagnosis and to see if you have liver damage.

WHAT IF I DON'T FEEL SICK?

Many persons with chronic (long-term) hepatitis C have no symptoms and feel well, but should still see their doctor. For some persons, the most common symptom is extreme tiredness.



HOW CAN I TAKE CARE OF MY LIVER?

- See your doctor regularly.
- Do not drink alcohol.
- Tell your doctor about all medicines that you are taking, even over-the-counter and herbal medicines.
- If you have liver damage from hepatitis C, you should get vaccinated against hepatitis A.

IS THERE TREATMENT FOR HEPATITIS C?

Drugs are licensed for the treatment of persons with chronic hepatitis C. Combination drug therapy using pegylated interferon and ribavirin, can get rid of the virus in up to 5 out of 10 persons with genotype 1, the most common genotype in the U.S. and 8 out of 10 persons with genotype 2 or 3. You should check with your doctor to see if treatment might help you.



WHAT IF I AM PREGNANT?

About five out of every 100 infants born to HCV infected women become infected. This occurs at the time of birth, and there is no treatment that can prevent this from happening. However, infants infected with HCV at the time of birth seem to do very well in the first few years of life. More studies are needed to find out if these infants will have problems from the infection as they grow older.

Persons should not be excluded from work, school, play, childcare, or other settings on the basis of their HCV infection status.

HEPATITIS C IS NOT SPREAD BY:

- breast feeding
- hugging or kissing
- food or water
- sneezing
- coughing
- casual contact
- sharing eating utensils or drinking glasses



HOW CAN I PREVENT SPREADING HCV TO OTHERS?

- Do not donate your blood, body organs, other tissue, or sperm.
- Do not share toothbrushes, razors, or other personal care articles that might have your blood on them.
- Cover your cuts and open sores.
- If you have one long-term steady sex partner, you do not need to change your sexual practices. There is a very low chance of getting hepatitis C to that partner through sexual activity. If you want to lower the small chance of spreading HCV to your sex partner, you may decide to use barrier precautions such as latex condoms. Ask your doctor about having your sex partner tested.

There is no vaccine available to prevent hepatitis C.

This brochure is made available by the CDC and can be downloaded or ordered at the website: <http://www.cdc.gov/ncidod/diseases/hepatitis/resource/index.htm>. For additional viral hepatitis educational materials and resources see the Educational Materials Sources section of this document.

The New York State Department of Health (NYSDOH) Hepatitis Unit and the New York State Department of Corrections (NYSDOCS) Infection Control Unit have collaborated on reporting protocols for inmates with hepatitis B and C in an effort to meet both NYSDOH and NYSDOCS guidelines. The following is the protocol for reporting of hepatitis-infected inmates by DOCS Infection Control Nurses (ICNs) and the inmate follow-up guidelines for LHDs. This protocol applies only to inmates in state prisons, not county jails or federal prisons.

DOCS ICN ROLE:

- DOCS ICNs will report cases with a positive HCV confirmatory test (anti-HCV screening-test predictive of a true positive, positive anti-HCV by RIBA, NAT for HCV RNA, or report of a HCV genotype). Anti-HCV screening-test-positive results without confirmatory results will not be reported.
- DOCS ICNs will report cases with a positive HBV test result (IgM anti-HBc, or HBsAg).
- Cases of acute or chronic hepatitis B or C will be reported to the LHD in which both the inmate is housed and the facility is located, using a DOH 389 form, to the LHD.
- The ICN will include the following information on the DOH 389 form:
 - Inmate name, DOB, facility address, occupation/setting (inmate), race, ethnicity, and gender.
 - Disease specification (acute or chronic)
 - Test type(s), date(s) and result(s) will be reported in the comments section of the DOH 389.
 - Any known risk factor information will be reported in the comments section of the DOH 389.
- If a correctional facility is asked to complete DOH 389 information for an inmate that is no longer housed in their facility, they will inform the LHD as to the facility in which the inmate now resides. Inmate charts are moved with the inmate from facility to facility. DOCS does not have an automated or electronic medical records system.

LOCAL HEALTH DEPARTMENT ROLE:

Communicate with Correctional Facility ICNs in your county to determine the best method for obtaining a completed DOH 389 form for inmate cases. DOCS procedure is to complete a DOH 389 form upon receipt of a positive, confirmatory anti-HCV test, NAT for HCV RNA, IgM anti-HBc, or HBsAg result for an inmate.

Upon LHD receipt of a positive laboratory report for an inmate, the LHD may send a DOH 389 with the inmates name and DOB completed, asking the facility ICN to complete the rest of the information. If the inmate is no longer housed at that facility, DOCS ICNs will send the DOH 389 back to the LHD with a note as to the location of the inmate's current facility. A DOH 389 will then need to be completed by the inmate's current facility. The LHD will need to contact this facility for DOH 389 completion. If the current facility is outside the LHDs jurisdiction, the LHD should forward the laboratory report and any additional information to the appropriate LHD.

- Please do not send the "Dear Doctor Letter" to correctional facilities.
- Please do not send Supplemental Hepatitis Forms to correctional facilities.
- Please do not follow-up with correctional facility staff on positive laboratory results, **other than the following:**
 - Confirmatory anti-HCV test
 - NAT for HCV RNA
 - HBsAg
 - IgM anti-HBc
- Inmate cases should be reported via CDESS, **including the supplemental screen** (i.e., ordering physician, test dates and results, and risk factor information as reported on the DOH 389).

Upon receipt of an anti-HCV, non-confirmatory positive laboratory report for a prison inmate, the case can be recorded via CDESS, under the chronic hepatitis C disease code, using "unknown" for case status. Unknown case status reports can be upgraded to confirmed upon receipt of a positive confirmatory test result and DOH 389 from the facility ICN.

I. General Reporting – Chronic Hepatitis Specific

- A case should be created within CDESS, from an investigation within CDESS, **only after** the LHD investigation is complete.
- CDESS allows LHD staff to report cases that reside within their own jurisdiction (their county). This includes inmates, rehabilitation patients, and patients of any other residential facilities located within the county.
- The Hepatitis Tracking System within CDESS has been designed to permit LHDs to forward Chronic Hepatitis Investigations should it be determined that the patient lives in another county, and to transfer Confidential Case Reports should the patient move from one jurisdiction to another. **Please do not forward investigations or transfer cases to New York City counties as NYC does not use CDESS.**
- For all incoming laboratory reports and DOH 389 reports, **SEARCH** functions within CDESS should be used to determine if the patient has already been reported to avoid duplicate reporting. Case reports for existing patients should be updated with any new information and test results.
- If you discover a chronic patient has already been reported in another county and the patient now resides in your county, please use the **TRANSFER FUNCTION** to request that the owning county transfer the record to your county. The transfer request function is available on the case matching screen. The transfer function generates an automatic email to the staff listed as “Hepatitis Surveillance Staff” in the Communications Directory in the county from which you are requesting the transfer. Staff in your county will receive an email alert once the case has been transferred.
- If you receive a request to transfer a case to another county, please transfer records **within 5 calendar days** from the receipt of a request.
- ECLRS reports and investigations may also be forward to the appropriate county where warranted. **To forward a laboratory report from ECLRS to another county**, you will first need to create an investigation via the “Summary of ECLRS Records Available for Transfer” link. An “Investigation/Case Matching List” will automatically attempt to locate any previous investigations or cases for that patient.
- If you have a case report for a patient that resides in another state, please forward the paper report to the appropriate state health department or to the NYSDOH Division of Epidemiology, Statistical Unit.
- Please enter all available information on the case **in the designated fields**. Please enter any **additional information in the comments field**.
- **Updates:** In general, most of the core case report fields should not be updated after the case has been reported. Update patient information such as address and any additional information that may have been missing when the case was first reported. Please do not update the case details section (i.e., the date of report should correspond the first report, not subsequent report dates).
- Hospital infection control practitioners (ICP) are able to create investigations in CDESS for patients of their hospital. When an ICP enters or updates an investigation, the patient’s LHD will receive an email notifying the LHD of the new or updated investigation report. The email will contain an URL that will direct the LHD to the investigation record (click on the URL link).

II. Definition of CDESS Terms

CDESS:	Communicable Disease Electronic Surveillance System.
Case:	A CDESS record that has been assigned a serial number.
Case County:	County where the case resided when a serial number was generated. This is the county in which the case will be counted for statistical purposes.

Create Date:	On the CDESS Search screen, the create date is the date an <i>investigation</i> was initiated, not the date the serial number was assigned. On the CDESS Reports screen, the create date is the date the serial number was assigned.
Forward:	Sending an investigation or ECLRS lab result to another county.
Investigation:	A CDESS record that has NOT been assigned a serial number. Public health investigation has not been completed.
Originating County:	The county in which the investigation was created. It may or may not be the same county that created the case from the investigation.
Owning County:	County that currently has access or ownership of a record for updating.
Transfer:	Sending a case to another county for maintenance.

III. Communicable Disease Case Report “CORE SCREEN” – Chronic Hepatitis Specific

Required fields are marked by an asterisk (*). Patient date of birth is important for unique identifying information. Other demographic information is also important in that these data will help to describe affected populations, inform prevention programs, and determine the need for resource allocation. Please attempt to collect and report this information whenever possible.

***PATIENT NAME:** **Last Name:** Entry is required. ***First Name:** Entry is required. **Middle Name:** Enter name or initial, if known. **Suffix:** Enter if known. **Maiden Name:** Enter if known.

PATIENT PHONE: Home: Area code is not required. The patient home phone number is an important field to enter, should the patient need to be contacted for follow-up. **Work:** Area code is not required.

PATIENT ADDRESS:

- **Street No./Street 1:** Letters and numbers are allowed. Street number and street name or PO Box and PO Box number should be entered. **Street 2:** Letters and numbers are allowed. Apartment number should be entered.
- ***Locality:** Entry is required. The locality is selected from a pick list of localities in the county. Locality names in the pick list followed by a “Z” indicate the selection is an institution.
- **Zip Code:** Only numbers are allowed. Enter the standard 5-digit zip code.

PATIENT CENSUS: This field is not required.

PATIENT BIRTH DATE: Patient date of birth is one of the unique identifier fields and should be entered whenever possible. If you have a partial date of birth, enter what you can and leave other fields blank. If you have more than one conflicting dates of birth for the same patient, enter the other date in the comments field with a note.

PATIENT AGE: Enter patient age, if known. ***Please note, patient age will automatically be calculated by CDESS if the DOB is entered when the case is first reported. However, if you are updating an existing case report with DOB that had a missing DOB, the age will NOT automatically be calculated.***

PATIENT AGE UNIT: Age Unit is selected from a pick list. It is the unit of entered age of the patient. The unit age defaults to years and is automatically selected when a date of birth is entered. The pick list values are:

- YEARS, for persons age 1 year and older

- MONTHS, for persons age 29 days to 1 year
- DAYS, for persons age 1-28 days
- UNKNOWN

PATIENT OCCUPATION/SETTING: Patient occupation/setting is selected from a pick list box. It should be entered whenever possible. It is especially important to note inmates in this field so that inmates are not included in case counts for your LHD jurisdiction. NOTE: Please select the inmate status for all inmate reports. Patients in residential rehabilitation facilities can be marked as "Other". In the other description box, please type "REHAB." Please do not enter the name of a business in the "other" box. Possible values:

- Food service
- Day care
- Health care
- Student/school
- Inmate
- Other Occ _____ (please type in, if known)
- Correctional worker
- Unknown

Patient occupation is also listed on the supplemental screen for chronic hepatitis cases, so that occupation may be updated over time without changing the patient's occupation when he/she was originally reported.

PATIENT RACE: Race should be completed whenever possible. Race is a select field with the following options: Asian and Native Hawaiian or other Pacific Islander race selections are followed by a pick list to further define the race of the patient. If known, the specific category of Asian, Native Hawaiian, or Pacific Islander should be selected in the appropriate pick list. Possible values:

- White
- Black
- American Indian / Alaskan
- Asian: PLEASE PICK ONE
- Native Hawaiian or other Pacific Islander: PLEASE PICK ONE
- Other
- Unknown

PATIENT ETHNICITY: Ethnicity should be completed whenever possible. Ethnicity is selected from a pick list. Possible values:

- Hispanic
- Non-Hispanic
- Unknown

***PATIENT SEX:** Required field. Sex is selected from a pick list and can be an important identifier. Sex is a required field for hepatitis reports. Possible values:

- Male
- Female
- Unknown

PATIENT PREGNANCY STATUS: Pregnant is selected from a pick list. **If the patient is male, please do not select a pregnant value.** Possible values:

- Yes
- No
- Unknown

Please note: The Chronic Hepatitis B Case Report Supplemental Form includes a pregnancy history table which MUST be updated each time the patient becomes pregnant.

PATIENT DATE OF DEATH: Chronic hepatitis case reports generally do not have an associated date of death. If you have a partial date of death, enter what you can.

PATIENT HOSPITALIZED: Hospitalized is selected from a pick list. Possible values are

- Yes
- No

If yes, please complete the following fields when available:

- **PATIENT HOSPITAL:** The hospital is selected from a pick list. *If hospitalized = yes then this field is required.* Please select the hospital in which the patient was hospitalized from the pick list. There are listings for 'Out of State', 'Other in NYS', and 'Unknown' if necessary.
- **ADMISSION DATE:** Partial dates are not allowed for this date.
- **DISCHARGE DATE:** Partial dates are not allowed for this date.
- **PATIENT CHART:** If the patient was hospitalized, please enter the chart number if available.

***PATIENT DISEASE:** The disease being reported is selected from a pick list. Disease is a required field. You must choose a specific disease in order to create a case report (e.g. Chronic Hepatitis B). Generic diseases (e.g. Hepatitis B-Generic) are acceptable for investigations only.

PATIENT DATE OF FIRST SYMPTOM: Chronic hepatitis patients are generally asymptomatic. Please do not use the test date as the date of first symptom if the patient is asymptomatic.

PATIENT DATE OF DIAGNOSIS: The CDC guidelines define “date of diagnosis” as the date of the first positive anti-HCV or HBsAg test. If you are sure that this is the date first diagnosed, please enter, otherwise leave blank.

DATE OF REPORT: Original date report (DOH 389 or other report) was filled out by doctor's office, hospital or facility, or the laboratory report date (e.g., date reported to ECLRS). This field is pre-populated when an investigation is created from an ECLRS report.

SOURCE: The Source field is selected from a pick list, and is the source of the report. If the source of the report is other than what is available in the pick list, you may choose one of the OTHER fields and then fill in the facility or person in the space provided. This field is pre-populated as “Lab” when the investigation is created from an ECLRS report. Possible values:

- MD
- Lab
- Hospital ICN
- School Nurse
- Public Health Nurse
- Other County Health Dept.
- Other State Health Dept.
- Other
- Unknown

PROVIDER: Last Name: The last name of the ordering physician on the laboratory report, or the name of the physician with which follow-up information was obtained.

First name: The first name of the ordering physician on the laboratory report, or the name of the physician with which follow-up information was obtained. **Provider Phone Number:** The area code is not required. Corresponding telephone number for the physician listed in the ordering physician field.

PROVIDER ADDRESS: Corresponding mail address for the physician listed in the ordering physician field. **Street No/Street 1:** The street number and name should be entered here. **Street 2:** The building, suite, or office number should be entered here. **City/State/Zip:** Corresponding to the locality of provider.

REPORTING INDIVIDUAL: Reporting individual is the name of the SOURCE person who reported the case. For example, if the Source=MD, then enter the name of the MD in the Reporting Individual field. Please do not enter the name of the LHD staff who reporting the case to the NYSDOH. **Phone Number:** Corresponding telephone number for the reporting individual.

REPORTING LAB: Enter the name of the reporting laboratory. This field is pre-populated when an investigation is initiated via the “Summary of ECLRS Records Available for Transfer” link. This field does not need to be updated as new reports become available.

DATES:

DOH 389 Received: If LHD received a DOH 389 report, enter the date received.

Report Received (by LHD): This is the date that the report, other than a DOH 389 report, was received by the LHD. For ECLRS laboratory reports, it is the date that the LHD downloaded the ECLRS report. This field is pre-populated when an investigation is initiated via the “Summary of ECLRS Records Available for Transfer” link.

Investigation Start Date: Date the LHD began the case investigation.

OUTBREAK: Most of the chronic hepatitis B and C cases will be sporadic; an occasional cluster (i.e., husband and wife) may be identified. Possible values:

- Sporadic case (1 case)
- Cluster (2 cases)
- Outbreak (>2 cases)
- Unknown

***CASE STATUS:** Case status is a required field. Case status is determined by the case definitions provided in this document. Possible values:

- Confirmed
 - Probable
 - Suspected
 - Unknown
- Please do not select “CARRIER” as the case status for a hepatitis case report. This value is used for communicable diseases other than hepatitis.

COMMENTS: Unlimited length field that is available on the CORE, LAB RESULTS, RISK FACTORS, and FOLLOW-UP screens. To be used for any additional information for which there is no designated field on either the confidential case report or the supplemental form.

IV. Case Year Selection Guidelines – Chronic Hepatitis Specific

When selecting the Reporting Year, please follow these guidelines:

CDESS guidelines suggest entering the case report in the year that corresponds to the year of the DATE of FIRST SYMPTOM; however, chronic hepatitis case reports generally do not have an associated date of first symptom.

CDESS guidelines suggest that if NO DATE OF FIRST SYMPTOM is available, use DATE of DIAGNOSIS. Again, this may not be known for chronic cases. If NO DATE OF DIAGNOSIS is known then use the REPORT DATE (either the laboratory report date or the DOH 389 report date).

If there is no report date available, then use the DATE REPORT RECEIVED (by the LHD) for case year.

V. Chronic Hepatitis B and C Supplemental Form Screens

CLINICAL & DIAGNOSTIC DATA:

Accessed under the “HEP CLINICAL” tab of the supplemental section.

OCCUPATION/SETTING: If the patient’s occupation has changed since they were first reported, enter the current occupation and date.

REASON FOR TESTING: The information for this field will generally be ascertained in LHD follow-up (i.e., Dear Doctor Letters, etc.) The information gathered in this field helps assess how/where infected persons were identified, which informs prevention planning. For cases stemming from blood bank laboratory reports, please select “Blood/Organ Donor Screening.” Possible values:

- Symptoms of acute hepatitis
- Screening of asymptomatic patient with reported risk factors
- Screening of asymptomatic patient with no risk factors (e.g., patient requested)
- Prenatal screening
- Evaluation of elevated liver enzymes
- Blood/organ donor screening
- Follow-up testing for previous marker of viral hepatitis
- Other (SPECIFY)
- Unknown

***ORDERING PHYSICIAN NAME:** This field is automatically populated from the core screen provider name field when a case is created. If a new ordering physician is identified from additional laboratory or other reports after the case has been reported, this field should be updated with the most recent physician information as it will not automatically be updated.

***ORDERING PHYSICIAN TELEPHONE:** Corresponding telephone number for the physician listed in the ordering physician field. This field is automatically populated from the core screen provider telephone field.

CLINICAL DATA:

DIAGNOSIS DATE: Automatically populated from the investigation or core report screen, if any diagnosis date is entered.

IS PATIENT SYMPTOMATIC: Chronically infected persons are generally asymptomatic. Please complete this field whenever possible to aid in the determination of case status. Possible values:

- Yes
- No
- Unknown

ONSET DATE: Automatically populated from the confidential case report screen, if any symptom onset date is entered. Chronically infected persons are generally not symptomatic, so onset date field would be left blank.

JAUNDICED: Chronically infected persons are generally not jaundiced. Please complete this field whenever possible to aid in the determination of case status. Possible values:

- Yes
- No
- Unknown

HOSPITALIZED FOR HEPATITIS: Please complete only if the reason that the patient was hospitalized was due to hepatitis symptoms. This is a different question than the hospitalized question on the core screen. Patient hospitalization information that is collected on the confidential case report screen is separate from this field. This refers to hospitalization specific to hepatitis. Check yes only if the patient was hospitalized due to complications from hepatitis infection.

WAS PATIENT PREGNANT: This field will automatically populate from the confidential case report form if the field was completed when the case was first created. If a existing case is being updated with pregnancy information, this field must be manually populated.

PREGNANCY DUE DATE: Enter due date if known.

DID PATIENT DIE FROM HEPATITIS: Please complete this field if the patient died from hepatitis, not from other causes.

DATE OF DEATH: Enter the date of death from hepatitis, not from other causes.

PREVIOUS ACUTE HEPATITIS SERIAL NO.: Enter the serial number for patients that were previously reported as acute and are now chronically infected. If the chronic case was created from an acute case report, this field will be automatically populated and there will be a link to the acute case report.

B. *DIAGNOSTIC TESTS:

Accessed under the “LAB RESULTS” tab of the supplemental section.

Laboratory test results and date of test are required fields on the supplemental form for chronic hepatitis cases. The date of test field is the corresponding “collection date” from the laboratory report. Please enter all test results and dates, positive or negative. Use the “ADD ROW” button to enter repeat test results for any of the following hepatitis tests.

TOTAL ANTIBODY TO HEPATITIS A VIRUS {TOTAL ANTI-HAV}: This test detects total antibody of both IgG and IgM subclasses of HAV. Its presence indicates either acute or resolved infection, or vaccine-induced immunity. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

IGM ANTI-HAV: This test detects antibody of the IgM subclass of HAV only. Its presence indicates recent infection with HAV and is used to diagnose hepatitis A. Absence of its presence may be used to rule out HAV infection in acute HBV and HCV infections. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HEPATITIS B SURFACE ANTIGEN {HBsAg}: This test is the most common test for hepatitis B virus. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

ANTIBODY TO HEPATITIS B SURFACE ANTIGEN {anti-HBs}: This test is often part of the complete hepatitis B serology panel. Its presence indicates immunity to HBV. It may also be called HBsAb, not to be confused with HBsAg. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

TOTAL ANTIBODY TO HEPATITIS B CORE ANTIGEN {total anti-HBc}: This test is often part of the complete hepatitis B serology panel. This test detects total antibody of both IgG and IgM subclasses of HBV. It is a marker of acute, chronic, or resolved HBV infection. It is not a marker of vaccine-induced immunity. It may be used in pre-vaccination testing to determine previous exposure to HBV infection. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

IGM ANTIBODY TO HEPATITIS B CORE ANTIGEN {IgM anti-HBc}: This test is often part of the complete hepatitis B panel. It detects antibody of the IgM subclass of HBV. Its presence indicates recent infection with HBV and is used to diagnose acute hepatitis B. Enter the collection date from

the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HEPATITIS B “E” ANTIGEN {HBeAg} This test detects “e” antigen of the hepatitis B virus. Its presence indicates a high degree of infectivity. It should not be confused with the HBsAg. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HEPATITIS B “E” ANTIBODY {HBeAb} This test detects antibody to the “e” antigen. Its presence can indicate either infection or immunity from past infection. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HBV NAT {e.g. DNA}: Hepatitis B Virus Nucleic Acid Test. This test is often repeated several times over the course of HBV treatment and is used to detect viral load. A field is also available to enter the numeric viral load. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

ANTIBODY TO HEPATITIS C VIRUS {anti-HCV}: This test is used to screen for antibody to the hepatitis C virus. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

IS THE ANTI-HCV S/CO RATIO PREDICTIVE OF POSITIVE?: This field is part of the anti-HCV screening test result. An anti-HCV screening-test-positive result with a s/co ratio predictive of positive is a confirmatory test for hepatitis C. Select results from the pick list. Possible values:

- Yes
- No
- Not reported

SUPPLEMENTAL ANTI-HCV ASSAY {e.g., RIBA}: This is a confirmatory test for antibody to the hepatitis C virus. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HCV NAT {e.g. PCR, TMA, bDNA}: There are several different types of tests that fall under the NAT category for HCV including qualitative PCR, quantitative PCR, HCV bDNA, and TMA. These tests may be used to detect viral load and may be repeated several times over the course of HCV treatment. A field is also available to enter numeric viral load. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

HCV GENOTYPE This is a text field. Please enter the actual result and the collection date from the laboratory report in the test date field (e.g., 1a, 1b).

ANTIBODY TO HEPATITIS D {anti-HDV}: Persons with HBV infection may also be infected with the Hepatitis Delta Virus (HDV). It is considered a superinfection of HBV. A person cannot be infected with HDV without being infected with HBV. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

ANTIBODY TO HEPATITIS E {anti-HEV}: Hepatitis E infection is rare in the United States; however, persons may be tested for antibody to the hepatitis E virus as part of an acute hepatitis panel. Enter the collection date from the laboratory report in the test date field and select results from the pick list (Positive, Negative, or Unknown) whenever possible.

LIVER ENZYME LEVELS

If updating a report with additional liver enzyme test results, use the “ADD ROW” tab on the left side of the screen to add another ALT or AST test date, result field, and upper limit normal field and enter the information in the new fields.

ALT {SGPT} RESULT: If known, enter the **numeric** ALT test result. This test result aids in the diagnosis of acute versus chronic disease.

DATE OF ALT RESULTS: Enter the collection date of the ALT result from the laboratory report.

UPPER LIMIT NORMAL: This is a **numeric** value. The normal range of ALT values is found on the laboratory report. The upper limit of normal may differ by laboratory. Please do not enter the range, enter the **highest number in the range**, if known.

AST {SGOT} RESULT: If known, enter the numeric AST test result.

DATE OF AST RESULTS: Enter the collection date of the AST result from the laboratory report.

UPPER LIMIT NORMAL: This is a **numeric** value. The normal range of AST values is found on the laboratory report. The upper limit of normal may differ by laboratory. Please do not enter the range, enter the **highest number in the range**, if known.

C. RISK FACTOR SECTION – SPECIFIC TO CHRONIC HEPATITIS B AND C:

Accessed under the “RISK FACTORS” tab of the supplemental section.

Please report any risk factor information for chronic hepatitis B and C cases when available. Most fields in this section are drop down boxes with Yes, No, and Unknown as the available selections unless otherwise noted.

Patient Country of Birth: Select from a pick list, possible values are USA and other. If other country of birth is known, enter the country name in the blank “other” field.

Hepatitis B risk factor questions:

Was the patient ever on long-term hemodialysis?

Has the patient ever injected drugs not prescribed by a doctor even if only once or a few times?

Has the patient had multiple sex partners?

How many sex partners has the patient had (approximate lifetime)? *Please enter the numeric value.*

Was the patient ever incarcerated?

Was the patient ever treated for a sexually transmitted disease?

Was the patient ever a contact of a person who had hepatitis?

If yes, type of contact:

Sexual?

Household (non-sexual)?

Other: *PLEASE SPECIFY*

Was the patient ever employed in a medical or dental field involving direct contact with human blood?

Has the patient ever had a tattoo?

Has the patient ever had a body piercing?

Hepatitis C risk factor questions:

Did the patient receive a blood transfusion prior to 1992?

Did the patient receive an organ transplant prior to 1992?

Did the patient receive a clotting factor concentrate produced prior to 1992?

Was the patient ever on long-term hemodialysis?

Has the patient ever injected drugs not prescribed by a doctor even if only once or a few times?

Has the patient had multiple sex partners?

How many sex partners has the patient had (approximate lifetime)? *Please enter the numeric value.*

Was the patient ever treated for a sexually transmitted disease?

Was the patient ever a contact of a person who had hepatitis?

If yes, type of contact:

Sexual?

Household (non-sexual)?

Other: *PLEASE SPECIFY*

Was the patient ever incarcerated?

Was the patient ever employed in a medical or dental field involving direct contact with human blood?

Has the patient ever had a tattoo?

Has the patient ever had a body piercing?

D. COUNSELING AND EDUCATIONAL INFORMATION:

Accessed under the "FOLLOW-UP" tab of the supplemental section or below the risk factor questions.

PROVIDED BY PHYSICIAN: Check this box if the physician reported that he/she has provided counseling and educational information to the patient.

PROVIDED BY COUNTY: Check this box if your LHD has provided counseling and educational information to the patient. Date provided field also available.

PROVIDED BY NYSDOH: Please do not complete this field. NYSDOH Staff will complete when appropriate.

To the extent that you are aware of the specific counseling messages provided to the patient, mark each of the following check boxes as applicable.

- BLOOD
- SEXUAL PRACTICES
- AVOID
- DISCUSS
- EDUCATION

E. INVESTIGATION INFORMATION:

Accessed under the "FOLLOW-UP" tab of the supplemental section or below the or below the Counseling and Education questions.

Investigation Start Date: This field is automatically populated from the core screen investigation start date field.

Method of healthcare provider follow-up: Possible values are:

- DEAR DOCTOR LETTER
- TELEPHONE CALL TO PROVIDER
- OTHER
- NONE

Dear Doctor Letter Sent Date: Enter the date the Dear Doctor Letter was sent by the LHD.

Dear Doctor Letter Receive Date: Enter the date the LHD receives the Dear Doctor Letter from the provider's office.

MD CASE CONFIRMATION:

Has this case been confirmed by a physician? Please choose YES, NO or NO RESPONSE.

Investigated by: Enter the name of the LHD staff who completed the case investigation, not the staff member who entered the case on CDESS.

Date: The date that the case investigation was completed.

The New York State Department of Health periodically reviews established laboratory reporting guidelines, makes revisions, publishes the guidelines, and distributes to laboratories serving New York State residents. The most recent Laboratory Reporting Guidelines (2004) include the required reportable laboratory test results for hepatitis A, B and C. The language is as follows:

AGENT	DISEASE	WHAT TO REPORT TO THE LOCAL HEALTH DEPARTMENT	SUBMIT ISOLATES OR SPECIMENS FOR CONFIRMATION
Hepatitis A Virus	Hepatitis A	Positive serology for IgM anti-HAV . ¹	No
Hepatitis B Virus	Hepatitis B	Positive serology for HBsAG (confirmed by neutralization), IgM anti-HBc, HBeAG, or HBV DNA. ¹	No
Hepatitis C Virus	Hepatitis C	Anti-HCV positive (repeat reactive) by screening assay with a signal-to-cutoff ratio predictive of a true-positive as determined by the particular assay (e.g., ≥ 3.8 for EIA or ≥ 8.0 for CIA) and all positive confirmatory assay (e.g., RIBA or NAA ²). Include s/co in the results section of the laboratory report. ¹	No

¹ Include all results (positive or negative) for additional serologic markers of hepatitis A, B, and C, and an alanine aminotransferase (ALT), if available.

² NAA (Nucleic Acid Amplification)

Below is a draft of a model public health access letter, which can be placed on LHD letterhead. It satisfies the HIPAA regulations in containing the elements HIPAA permits providers to rely on in good faith when disclosing information to public health authorities. Each program needs to complete the plank under the sentence "Access to the information listed is sought under the Department's authority pursuant to PHL [specify] and/ or health regulations [specify]. The general disease reporting requirement is in **PHL 206(1)(d) and Article 21 and 10 NYCRR Part 2.**

To [Responsible party at Facility]:

This letter has been prepared to clarify and confirm the authority of [Name staff or positions], [Name LHD program] to access, inspect and copy:

[Specifically describe information to be accessed/inspected/copied; e.g., all medical files/clinical records relating to Dr. A/transplant services from [date] to [date], located or maintained by the facility noted above.]

Such access, inspection and/or copying relates to the: [Specify, e.g., NYS investigation/complaint involving Dr. A/facility filed on [date]/initiated on [date]].

Access to the information listed is sought under the Department's authority pursuant to Public Health Law [specify] and/or health regulations [specify].

Such access has been determined by [program name], [LHD] to be the minimum necessary for protected health information for the stated purpose in compliance with 45 C.F.R. 164.502. Please note that federal regulations permit reasonable reliance given attendant circumstances regarding requests for information made by public officials for stated purposes and by requests made by one covered entity (e.g., the Medicaid program) to another. 45 C.F.R. §164.514(d).

Federal regulations, 45 C.F.R. Part 164.512 (copy enclosed) authorize disclosure without patient consent in a number of circumstances, including the following:

Disclosure is permitted to a public health authority authorized by law to access information to prevent/control disease, injury, disability, e.g., disease reporting, vital statistics reporting, public health surveillance, public health investigations, public health interventions and partner notification. [If these are not applicable to the situation, consult with the DOH Privacy Officer.]

If you have any questions with respect to authority to access, record, inspect and/or copy personally identifiable information, call [program supervisor] at [insert telephone number].

[Program Supervisor]

Signed

Enclosure

Q: I received a positive IgM anti-HAV ECLRS laboratory report without the patient's address on it. Do I need to investigate the report right away or wait until the laboratory reports the address?

A: An investigation for a positive IgM anti-HAV laboratory report should begin within 24 hours of obtaining the report. Do not wait to see if the laboratory is going to report the address. Telephone the laboratory or the patient's health care provider to obtain the patient's address. If the patient does not reside in your county, forward the CDESS investigation (with the address in the comments field) to the correct county.

Q: I received a positive HCV bDNA test result. What is this test and where can I report it?

A: HCV bDNA is a quantitative branched DNA test for HCV RNA (similar to a PCR test). This test, date, and result can be reported in the Diagnostic Tests section of the case report in the NAT (Nucleic Acid Testing) field.

Q: I received a positive hepatitis C virus TMA test. How should this info be entered in CDESS?

A: TMA (transcription-mediated amplification) is a qualitative HCV RNA assay and the result is reportable. It should be entered in the NAT field.

Q: What is HEPTIMAX?

A: HEPTIMAX is a quantitative HCV RNA assay and is reportable. It should also be entered in the NAT field.

Q: I tried to update a report and noticed that the case status was revoked. Do I have to re-enter the case?

A: Case reports without test results may have been revoked. If the report was revoked because it did not have test results, contact the statistical unit to have the case restored and then enter the new information.

Q: I received a positive anti-HCV report for a child less than one year of age. What should I do?

A: Follow-up with the ordering physician to see if the mother of the infant is infected with HCV. Infants can carry maternal antibodies for up to one year of birth, and may not be infected with HCV themselves. Only NAT tests can verify infection.

Q: What should I do with positive anti-HCV results if there is no signal-to-cutoff ratio reported?

A: A positive anti-HCV screening test is a reportable laboratory test result only if the signal-to-cut-off ratio is confirmatory positive. However, if LHD resources allow, it is a good idea to follow-up on screening test results with no reported signal-to-cut-off ratio, as they may be true positive results.

Q: What should I do with positive anti-HCV results if the signal-to-cutoff ratio is not high enough to be considered confirmatory?

A: Report the result as you would if the signal-to-cutoff ratio were not reported, as the result is still considered positive, just not confirmatory positive.

Q: What should I do if a physician refuses to give me patient information, citing the HIPPA regulations?

A: Inform the physician that the HIPAA regulations specifically permit, without patient consent, disease reporting for public health activities in 45 C.F.R.164.512 (b). This section states in part: "A covered entity may disclose protected health information for the public health activities . . . (i) A public health authority that is authorized by law to collect or receive such information for the purpose or preventing or controlling disease, injury...including...the reporting of disease..."

Q: Where in CDESS do I report additional information for which there is no space available on the form?

A: You can report any additional information about the patient in the comments field of the supplemental form in CDESS.

Q: If I receive a positive laboratory report for a person that was reported as a chronic case (hepatitis B or C) in a previous year, do I have to report it?

A: If the case had not been reported on CDESS in the previous year, it should be reported as a current year case. If the case is already reported on CDESS, update the case report with any new information.

Q: Reports from the American Red Cross often do not include Primary Care Physician (PCP) information. If the Red Cross does not provide a PCP and follow-up with a physician is not possible, how should I report the case?

A: Since symptomatic persons are not permitted to donate blood, cases reported by the Red Cross are unlikely to be acutely ill. If the report includes a positive HBsAg confirmed by neutralization, and the PCP cannot be contacted, enter the case as chronic HBV. If the report includes positive serology for HCV by a confirmatory test (i.e., PCR, RIBA, or anti-HCV screening test with signal-to-cut-off ratio predictive of a true positive), report the case as chronic.

Q: Should inmates be reported in the county where they lived prior to incarceration?

A: No. Persons infected with HBV or HCV who are incarcerated should be reported to the NYSDOH by the county in which the FACILITY is located, not the county in which the inmate was residing prior to incarceration, regardless of length of sentence.

Q: Should patients in short-term rehabilitation facilities be reported in the county where they lived prior to admission to the rehabilitation program?

A: No. Persons infected with HBV or HCV who are in a rehabilitation program should be reported to the NYSDOH by the county in which the FACILITY resides, not the county in which the patient was residing prior to admission, regardless of length of stay at the facility.

Q: What date should be entered for date of onset for chronic hepatitis cases?

A: Onset date is generally unknown for chronic cases, as most chronic hepatitis cases are asymptomatic, and can be left blank. Diagnosis date is also generally unclear and may be left blank if you are unsure. The report date should be reported as the date on the laboratory or DOH 389 report.

Q: What happens if I add a patient via CDESS and another county has already reported the case?

A: The validation search function and ECLRS transfer function in CDESS will display a list of matching names in the registry when you attempt to add a patient via CDESS. If no matching cases are found by CDESS, the patient was not previously reported. If CDESS finds any matches, you can update the existing case report if the case was reported by your LHD. If the case was reported by another LHD and the patient now lives in your jurisdiction, you can request that the case report be transferred to you.

Q: My health department keeps a log of all chronic hepatitis cases reported to the department. Since we are now required to report chronic cases via CDESS, do we need to maintain a separate log?

A: No. It is not necessary to enter your chronic cases in two separate databases. CDESS is set up to act as a database.

Q: How do I report a case without a patient address?

A: Attempts should be made to verify the patient address; however, if patient address is unavailable, use the “Unknown in County” option in the LOCALITY field in CDESS to report the case.

Q: How can I find out if a case has already been reported via CDESS?

A: Use the “SEARCH” option on the CDESS Main Menu page to run a query of cases reported via CDESS or use the “VALIDATION SEARCH PAGE” by clicking on the link in the CDESS main menu: Initiate a new CD/STD/TB case/investigation. The ECLRS transfer option can also be used to determine if a patient reported on ECLRS has already been reported by clicking on the “Transfer ECLRS Records” link on the CDESS Main Menu.

Q: I recently received a positive HBsAg report from ECLRS. I found the patient's 2001 acute case report on CDESS using the serial number that I had on file for him, but I couldn't update the case. Why not?

A: Acute records are locked for editing once the reporting year is closed, as an acute illness is a one-time occurrence. If the patient is now chronic, you can use the acute case report to create a chronic case report for a patient, or the chronic case report can be manually entered.

Q: How can I find out if a case has already been reported in CDESS?

A: Using the “CDESS Search” option you can now query cases reported across NYS. This can be done using the first and last name and the options “begins with, sounds like or exactly” or maiden name.

The following education materials are provided by the New York State Department of Health and can be ordered by New York State residents.

The HEPATITIS A, B & C EDUCATIONAL MATERIALS ORDER FORM is available at http://www.health.state.ny.us/forms/order_forms/hepatitis_education.pdf

Hepatitis Materials for Consumers

HEPATITIS A

- **Hepatitis A – Know the Risks. Get Vaccinated** – This is a magnet providing information on the risks associated with hepatitis A. It encourages people to get vaccinated. (**magnet**) **NEW** 1/05

HEPATITIS B

- **You...Your Baby...And Hepatitis B** – This brochure helps the readers understand hepatitis B, how they may have become infected, the associated risks of perinatal infection, and how to protect their baby from being infected. (**brochure**) 1/99
- **Hepatitis B Carrier: Care for Yourself & Protect Others** – This brochure helps the reader understand chronic hepatitis B, the associated risks of chronic hepatitis B infection, how to treat and manage the disease, and how to protect others. (**brochure**) 10/00
- **10 Reasons – Adolescent Hepatitis B** – This flyer provides readers with ten reasons why children and adolescents should be vaccinated against hepatitis B, including information on hepatitis B, virus transmission and symptoms. (**flyer**)
- **Hepatitis B – Know the Risks. Get Vaccinated** – This is a magnet providing information on the risks associated with hepatitis B. It encourages people to get vaccinated. (**magnet**) **NEW** 1/05
- **Living with Chronic Hepatitis B** – This brochure, created by the CDC, helps the reader understand chronic hepatitis B, how they become infected with HBV, the available treatments, and how to prevent spreading the disease to others, including prevention of perinatal transmission. (**brochure**) **REVISED** 8/03

HEPATITIS C

- **What You Need to Know About Hepatitis C** – Wanda, Carlos, and Michael share their concerns and experiences living with hepatitis C to provide readers with important information about testing, treatment and prevention of hepatitis C, and healthy behaviors. (**booklet**) **NEW** 2/05
- **Hepatitis C – Know the Risks. Get Tested** – This is a magnet providing information on the risks for hepatitis C and encouraging people to get tested. (**magnet**) **NEW** 1/05
- **Get Tested for Hepatitis C** – This brochure, developed by the CDC, encourages people at risk for hepatitis C to get tested and provides basic information about hepatitis C transmission, prevention and treatment. (**brochure**) 5/00
- **Hepatitis C Prevention** – This brochure, developed by the CDC, helps readers understand hepatitis C, how to prevent infection and encourages testing for those at risk. (**brochure**) **REVISED** 2/03
- **Living with Chronic Hepatitis C** – This brochure, developed by the CDC, helps readers to better understand what hepatitis C is, how they may have become infected, treatment options, and what they can do to prevent infecting others. (**brochure**) **REVISED** 8/04
- **What Do You Know About Hepatitis C?** – This is a low-literacy tri-fold brochure which gives the reader the basic facts about hepatitis C and hepatitis C prevention. It also contains phone numbers where additional information can be obtained, including information on substance abuse treatment. (**brochure**) **NEW** 2/05

- **What Do You Know About Hepatitis C & HIV?** – This brochure provides basic information about hepatitis C transmission, prevention, testing and treatment with an emphasis on the need for people living with HIV to be tested and receive treatment for hepatitis C. It is written at a low reading level to provide the basic facts about these viruses. (**brochure**) 12/02 (English); 3/03 (Spanish)
- **What You Need to Know About Hepatitis C: A Guide for People With HIV** – Wanda, Carlos, and Michael share their concerns and experiences living with HIV and hepatitis C to provide readers with important information about testing, treatment and prevention of hepatitis C; coinfection with HIV; and healthy behaviors. The booklet includes a section about HIV and hepatitis C risk reduction for drug users. (**booklet**) 3/02
- **True/False, Scratch-off cards - Hepatitis C: What do you know?** This interactive outreach and education tool promotes awareness of HCV among youth. This card includes a photo of two teens on one side and statements about different issues related to HCV on the other. Readers must “scratch-off” the card in order to learn if the statements are true or false. The card refers readers to the New York State Department of Health’s Hepatitis Web Page. (**card, size 4" X 3"**). English 11/05; Spanish 11/05
- **True/False, Scratch-off cards - Hepatitis C: Know the facts.** This interactive outreach and education tool promotes awareness of HCV among youth. This card includes a photo of a teenage female on one side and statements about different issues related to HCV on the other. Readers must “scratch-off” the card in order to learn if the statements are true or false. The card refers readers to the New York State Department of Health’s Hepatitis Web Page. (**card, size 4" X 3"**). English 11/05; Spanish 11/05

Hepatitis Materials for Providers

HEPATITIS A / B

- **Know More About Hepatitis A and B** – This is a poster providing information on the risks associated with hepatitis A and B. It encourages people to get vaccinated. (**poster**) **NEW** 3/04

HEPATITIS B

- **You...Your Baby...And Hepatitis B** – This poster encourages people to learn more about the risks associated with hepatitis B, and how to prevent infection. (**poster**)
- **It’s No Game – Adolescent Hepatitis B** – This poster encourages readers to get vaccinated against hepatitis B. (**poster**)
- **One Less Worry – Adolescent Hepatitis B** – This poster encourages parents of adolescents to get their children vaccinated against hepatitis B. (**poster**)
- **Know More About Hepatitis A and B** – This is a poster providing information on the risks associated with hepatitis A and B. It encourages people to get vaccinated. (**poster**) **NEW** 3/04
- **Hepatitis B – Know the Risks. Get Vaccinated** – This is a magnet providing information on the risks associated with hepatitis B. It encourages people to get vaccinated. (**magnet**) **NEW** 1/05

HEPATITIS C

- **Hepatitis C Counseling Messages: A Guide for Physicians** – This brochure provides physicians with an overview of the basic hepatitis C counseling messages to be used for those infected with hepatitis C. It is intended for physician use only and not for public distribution. (**brochure**) 4/03
- **Hepatitis C Counseling Messages: A Guide for Local Health Departments** – This brochure provides local health departments with an overview of the basic hepatitis C counseling messages to be used for those infected with hepatitis C. It is intended for local health department staff use only and not for public distribution. (**brochure**) 4/03
- **Hepatitis C Does Not Discriminate** – This is a poster providing information on the risks for hepatitis C and encouraging people to get tested. (**poster**) **NEW** 3/04

- **Hepatitis C – Know the Risks. Get Tested** – This is a magnet providing information on the risks for hepatitis C and encouraging people to get tested. (**magnet**) **NEW** 1/05
- **Living with Hepatitis C** – This video, developed by the New York City Department, gives health care providers information and skills for testing, treating and educating patients about hepatitis C, including information about coinfection with hepatitis C and HIV. It includes testimonials from patients living with hepatitis C. (**video; TRT 20:15 min.**) 6/02
- **Clinical Guidelines for the Management of Hepatitis C** - This document provides health care providers with guidelines for diagnosis, treatment, and management of patients at-risk for or infected with hepatitis C virus. (Full version) 10/05
- **Clinical Guidelines for the Management of Hepatitis C** - This document is the condensed version of the recommendations, tables and figures from the Clinical Guidelines for the Management of Hepatitis C. (Condensed version) 10/05

Additional HCV education materials can be ordered from the Centers for Disease Control and Prevention (CDC). A list of available viral hepatitis education brochures and an electronic order form can be obtained from the CDC website Resource Center at <http://www.cdc.gov/ncidod/diseases/hepatitis/resource/index.htm>.

HEPATITIS A

- **Prevent Hepatitis A**
- **Prevent Hepatitis A** - Spanish language version
- **Prevent Hepatitis A** - Russian language version
- **Prevent Hepatitis A** - Ukrainian language version
- **Prevent Hepatitis A** - Native American version
- **Viral Hepatitis Integration for HIV Prevention Community Planners**

HEPATITIS B

- **Hepatitis B and You**, a PowerPoint health education program, is designed to educate women who test positive for the hepatitis B virus (HBV) during pregnancy.
- **Hepatitis B and You** - Spanish language version
- **Hepatitis B and You** - Chinese language version
- **Hepatitis B and You** - Vietnamese language version
- **Hepatitis B and You** - Korean language version
- **Living with Chronic Hepatitis B**
- **Living with Chronic Hepatitis B** - Spanish language version
- **Living with Chronic Hepatitis B** - Russian language version
- **Living with Chronic Hepatitis B** - Ukrainian language version
- **Prevent hepatitis B**
- **Prevent hepatitis B** - Spanish language version
- **Prevent hepatitis B** - Russian language version
- **Prevent hepatitis B** - Ukrainian language version
- **Viral Hepatitis Integration for HIV Prevention Community Planners**

HEPATITIS C

- **What every injection drug user should know**
- **Hepatitis C... You may be at risk if you had a blood transfusion before July 1992** - English language version

- **Hepatitis C... You may be at risk if you had a blood transfusion before July 1992** - Spanish language version
- **Living with Chronic Hepatitis C**
- **Living with Chronic Hepatitis C** - Spanish Language version
- **Living with Chronic Hepatitis C** - Russian Language version
- **Living with Chronic Hepatitis C** - Ukrainian language version
- **Hepatitis C Prevention**
- **Hepatitis C Prevention** - Spanish language version
- **Hepatitis C Prevention** - Russian language version
- **Hepatitis C Prevention** - Ukrainian language version
- **Get Tested for Hepatitis C**
For persons who were notified that they received blood possibly infectious for hepatitis C virus or if they received blood before July 1992.
- **Hagase la prueba de la hepatitis C**
- **Hepatitis C Patient Information Card**
- **Viral Hepatitis Integration for HIV Prevention Community Planners**
- **Hepatitis C: Know the Risks, Get Tested** (By the Indian Health Service)

HEPATITIS RESOURCES

New York State Department of Health
Bureau of Communicable Disease Control
Hepatitis Unit
Corning Tower Room 651, Empire State
Plaza
Albany, NY 12237
PHONE: (518) 473-4439
FAX: (518) 474-7381
EMAIL: hepatabc@health.state.ny.us
WEB: www.health.state.ny.us Click on "Info
for Providers" and "Viral Hepatitis" links.

Perinatal Hepatitis B Program
PHONE: (518) 473-4437

Statistical Unit
PHONE: (518) 474-0548
FAX: (518) 474-4880

**Centers for Disease Control and
Prevention**
1-888-4HEP or 1-888-443-7232
www.cdc.gov/hepatitis

Immunization Action Coalition
(651) 647-9009
www.immunize.org

Hepatitis Foundation International
1-800-891-0707 or (301) 622-4200
www.hepatitisfoundation.com

American Liver Foundation
1-800-GO-LIVER or
1-800-4HEP-ABC
www.liverfoundation.org